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ORIGINAL ARTICLES.

A CONTRIBUTION TO THE THERAPY OF ENURESIS.*

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Enuresis is considered a very simple disorder, and, it is true, that in the vast majority of cases spontaneous cure is to be expected; but the practitioner will have all kinds of humiliating experiences in the management of these patients. What is a common experience under the ordinary text-book treatment?

The child improves temporarily, again relapses, the dose is increased, and again it loses its effect. After a few weeks the parents grow discouraged and send for another physician.

In another case little or no effect is produced by the ordinary remedies. In the third case atropine poisoning becomes manifest; the parents, frightened, refuse to continue the use of the remedy.

In a small series of cases the treatment is effectual, but the larger number are not cured, even when the atropine is continued for months. After a few years, fortunately, most cases recover; exceptionally the weakness persists to manhood.

The pathological physiology of functional incontinence of urine or enuresis is still somewhat obscure. In individual cases it is often difficult to determine what part of the urinary apparatus is at fault. And even today there is quite a controversy on the exact pathology of the disorder in general. Henoch (1881) admitted that we know very little concerning nocturnal enuresis, and is in doubt whether it is a diseased condition or the result of habit. He believes that the immediate cause is either atony of the sphincter vesicæ, or a spasm of the detrusor urinæ. The former is associated with diurnal incontinence also. In most cases he assumes a hyperesthesia of the neck of the bladder. Still, he admits that psychological impressions have a marked influence in the cure of the disease.

This seems about the general opinion today, since most text-books lay stress on the irritable mucous membrane, spasm of the bladder and peripheral irritation.

The treatment has in the main been entirely empirical, as based on the foregoing. Consequently, an enormous number of therapeutic agents have been more or less successfully employed.

It is my intention in this paper to review briefly the therapeutics of the past and give a treatment which has been fairly successful in my hands.

In the first place I will entirely ignore treatment made to restore local abnormalities, and also tonic treatment to increase the general nutrition. These measures are, of course, always indicated when local or general signs of disease

* Read by title before the Missouri State Medical Association.

are present. Then, too, I take for granted that indigestion and urinary hyperacidity have been corrected by appropriate dietary directions.

The older writers (West, Dewees, Eberle) recommended limitation of floods, preventing the child from lying on his back, tonics, cold sponging of the back and limbs, and in severe cases the tincture of cantharides was administered. This drug is not now used to any extent, but the other measures are recognized of great service.

It is curious how the older writers depended on this drug, the actual action of which depends on the irritating qualities of the urine which it induces. While great stress was laid on the elimination of the irritating qualities of uric acid from the urine, the administration of cantharides was conceded to be very effective. The drug stood in the same relation to the therapeutics of enuresis as belladonna stands today.

Some contradictory phases of the therapy appear.

Thus Charles Bell early in the nineteenth century made the statement that lying on the back predisposed to involuntary micturition, and various devices were employed to keep the child from assuming the dorsal recumbent position. Now, this procedure is disregarded. Yet a recent writer (Hovenden, *Brit. Med. Jour.*, March 22, 1902) again urges that the patient should be kept from lying on the back.

The various remedies used in the past may be classified as follows:

1. Measures to inhibit the contractions of the bladder.
2. Remedies to lessen the irritability of the neck of the bladder.
3. Remedies to diminish the acidity of the urine.
4. Means to lessen the quantity of the urine.
5. Measures to increase the tonicity of the neck of the bladder and the nervous system.

Bretonneau, according to Trousseau, made use of belladonna in the cure of enuresis, but the latter author first popularized it. Even today it is the most useful drug employed. Its effect is to inhibit the contractile power of the bladder, although it is said also to diminish the irritability of the bladder. The mode of administration varies, but it is recognized that large doses are necessary. While these large doses are effective, the cure is not permanent. Relapses are the rule. Holt recommends that the drug should be given for many months, but it is difficult to persuade parents to give it for many months when they can see no special benefit after a few weeks.

It is probable that *rhus aromatic* and *rhus glabra* also have some effect in diminishing the irritability and contractility of the bladder. *Hyoseyamus* acts similarly, but less powerfully.

Remedies to inhibit the irritability of the neck of the bladder are numerous. Martin (*L. Union Medicale*, 1892) advocated the use of antipyrine. It has become a favorite remedy. Others have found the hypnotics beneficial—*e. g.*, chloral, sulphonal, etc. Opium and its alkaloids have been used for this purpose.

The administration of alkalies and their citrates and acetates to diminish the acidity of the urine is a common practice. They also act as diuretics and in this way diminish the quantity of urine at night.

Means to lessen the quantity of urine has not received sufficient attention. The older writers particularly urged that the ingestion of fluids be diminished, but Holt warns that this means renders the urine more concentrated and, there-

fore, more irritating. We know of no drug which inhibits the secretory power of the kidney, although both ergot and belladonna have been used for this purpose. The former drug certainly diminishes the flow in diabetes insipidis, and its therapeutic value in enuresis may depend on this action. *Rhus aromatic* and *rhus glabra* probably also diminish the secretion.

I have found that the secretion at night may be somewhat lessened by stimulating the kidneys in day time; and I often prescribe some diuretic during the morning and noon time, followed by belladonna or other drug at night.

Measures to increase the tonicity of the neck of the bladder are commonly employed. Ergot and strychnine are the usual remedies for this purpose, although they must at the same time augment the contractility of the bladder.

Local measures are the passage of a sound, which probably causes a swelling of the mucous membrane; application of electricity; and the injection of some irritant in the prostatic urethra.

Herbsmann gave us a very effective means, namely, the massage of the neck of the bladder through the rectum. Caillag had good results with this procedure, but I have found that it is rather a difficult treatment to introduce into a family. The child does not take kindly to it, and the parents object.

Discussion of the means to tone up the nervous system brings out the fact that there has always been a tendency to regard enuresis an affection which depends on an abnormality of the central nervous system. Inasmuch as the sphincter vesicæ and the levator ani are under the control of the will, a strengthening of the cerebral inhibitory function is really the most effective treatment. Budge and Masso have shown that a contraction of the detrusor urinæ can be evoked by stimulation of the crura cerebri, medulla or anterior columns. Even the earlier writers bring this out, and there can be no doubt that mental stimulation by shaming or chastising the patient often results in cure. Probably it is true, as Holt urges, that rewards are really more effective, and certainly they are to be recommended rather than the whip.

The stimulation to the nervous system is illustrated by a variety of treatments. Even Dewees (1835) used a blister to the sacrum with benefit.

The influence of cerebral function was clinically confirmed by Harkin (*Provincial Med. Jour.*, 1887), who believed that a congestion of the medulla was the origin of the trouble. He blistered the nape of the neck with the liniment of cantharides and obtained the most remarkable results. It has often been pointed out that a change of residence, surroundings, companions, or occupation results in a speedy cure.

The lessened inhibition of the cerebrum is also shown by the symptom of Freud (*Brit. Med. Jour.*, p. 93, December 9, 1893; *Neural. Centralbl.*, December 21, 1893) to which little attention has been given and which I have corroborated in a few cases. This symptom is a hypertonic condition of the crural adductors.

"To elicit the symptoms the child is seated with its legs on a table, its feet are then grasped and an endeavor is made to separate them as wide as possible in a longitudinal direction. In a typical case the adductor spasm at first is considerable, but soon yields; on releasing the feet the legs spring back into contact." Spasticity also is found in the quadriceps extensor on attempting to flex the knee. The resistance here is very pronounced at first, but quickly subsides. If flexion be thus repeated, only slight extensor tension is observed. This symptom is rare in normal children. He suggests that excessive spinal innervation

of the detractor and of the crural muscles may be a factor in the combination of symptoms. This probably again depends on insufficient cerebral inhibition as in spastic paraplegia.

Among recent writers, Thiemich has very forcibly emphasized the cerebral origin of enuresis (*Berl. Klin. Woch.*, 5 August, 1901). He argues that we cannot regard enuresis as a weakness of the cut-off muscle. He tries to prove that enuresis is only a symptom of a general nervous disorder; in other words, he regards it as a manifestation of hysteria. The proof he gives is that there is usually a neuropathic ancestry; that other hysterical symptoms are common; that epidemics occur in asylums and hospitals; that isolation of patient usually cures; that electricity cures no matter where applied; that the hypodermatic injection of strychnine has a curative effect, but the same result may be induced by a hypodermatic injection of salt solution; that the operation for adenoids, which often cures, acts by suggestion; and unsuccessful therapeutic attempts make the chances of future cure less. He finds the surest cure is the isolation of the patient.

The treatment advocated by Pendergast (*N. Y. Med. Jour.*, July 11, 1896) acts as a stimulant to the nervous system, and may be said to be a very powerful remedy for any hysterical tendencies.

The method employed in a boys' orphan asylum was as follows: The boy was stripped and placed standing in an empty bath tub. A basin, or a vessel with a spout to it like a watering can, was filled with cold water and poured over the shoulders and down the back of the subject. In nervous, delicate children, one dash of water was sufficient for an application; in the sluggish, phlegmatic lads, the dose might be repeated. The boy was immediately rubbed down, dressed in night clothes, and put to bed. Sponging the back with cold water does not have the same value as douching.

A few words more in regard to the connection between adenoids and enuresis. Grodich (*Arch. f. Kinderheilk.*, Bd. xx, Heft 3 and 4) thought he had discovered a connection between adenoids and enuresis. In a number of cases in which the adenoids were removed, the incontinence stopped. In four cases adenoids reappeared and with them the enuresis. Huber in this country has also written on this subject, and he even suggested some relation between the diminished intake of oxygen in patients suffering from adenoids and the blood supply of the cerebrum and spinal column.

In short, it may be said that the theory of cerebral involvement in enuresis is in the ascendent, and therapy directed to increase the inhibition of the cerebrum is the most rational. The practice of awakening the child at night to empty the bladder does not effect a cure. The child's will must be stimulated to retain it.

In conclusion, I will give the treatment which I have lately followed with considerable success:

1. Two doses of a diuretic during the day: One at 9 A. M. and the other at 2 P. M. Usually I prescribe the alkaline citrates with spirit of nitrous ether, but I have also used caffein and diuretin, and sodium benzoate.

2. Give one dose of atropine at night. Instead of atropine I have used rhus aromatic, also antipyrène.

3. I use Pendergast's method of douching the back.

It is too early yet to speak of the proportion of cases cured and the time which elapses before cure. This I reserve for a future communication.

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SOME EXPERIENCES WITH LOCAL AND GENERAL ANESTHETICS.

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It is not my intention to present a thesis upon anesthetics in particular or in general, but to detail some of the work I have been doing under the various anesthetics, with the results. This subject of anesthetics is of interest to the surgeon and the doctor of internal medicine alike. Both are confronted with the question whenever an operation is advised, "What means shall be used to render it painless?" Every suggestion, the result of experience, helps to give better definition to the limits of the various anesthetics, and it is in this spirit I present this paper.

In the choice of anesthetics I have made rapid strides toward discarding general anesthesia wherever the local can be used satisfactorily, operating fully ten times oftener under local today than I did five years ago in the same relative number and class of conditions. Capacity to use local anesthesia as a means of painless operating increases with practice, and I am better prepared to work with the aid of the hypodermic syringe now than I was five years ago. Each operator's experience must to a certain extent be a law unto him, and a method for one is not a method for all. Careful attention to the details of the different procedures will alone enable one to accomplish satisfactory results.

There are offered upon the market today a number of local anesthetics, but I have confined myself to the use of two—eucaine and cocaine. These have proven most satisfactory and therefore I have had no occasion to experiment with others. Of the two the majority of my work has been done with eucaine. It possesses certain advantages over cocaine which makes it applicable more generally. Chief among these is the fact that it can be sterilized by boiling without appreciable deterioration. This makes it most satisfactory in areas where foreign materials, silk, silver, etc., have to be left in tissues. Cocaine being less easily sterilized is more apt to infect such materials and mar surgical results. Eucaine is not toxic within reasonable limits and therefore safer. In my own experience there was one questionable incident in which eucaine may be said to have exerted a toxic influence. The patient had a Laenec's cirrhosis combined with gall-stones. Upon the basis of this an infectious biliary catarrh commenced. I opened the gall-bladder to establish drain and then performed an omentopexy. Before finishing the operation the patient became restless and somewhat flighty, his pulse weakened and respiration became difficult and rather shallow. Whiskey was given and nitroglycerine. The symptoms passed away in a short while after removal to bed and were most probably due to the shock caused by the necessary manipulation of the abdominal viscera.

In preparing the solution of eucaine for this work I boil a one-tenth per cent. solution in water for five minutes and add boiling water to this from time to time to make up the loss through evaporation. Allowing it to cool in the dish, it is aspirated into a syringe for use. This avoids the possibility of contamination by transferring to another receptacle. A ground glass syringe is preferable in order that the requirements of asepsis be carried out in an ideal manner. To accomplish sterilization I place the syringe in ninety-five per cent. carbolic acid for three minutes, then transfer it to alcohol, when it is ready for use. This avoids possible breakage from boiling and is more rapid.

It is not uncommon to hear complaint made of two possible sequences of the local injections, namely, sloughing and pain afterward. As to the first I cannot say I have ever seen a slough follow the use of a local anesthetic where it has been used properly. An infected needle, or improperly prepared solution, and at times a disregard of surgical precautions, is where such trouble arises from. As for pain, my patients used to complain far more than they do at present. I attribute this to the fact that I never use a stronger solution hypodermically than one-eighth per cent. of the drug. Stronger are very apt to be followed by an annoying, burning pain for several hours. In circumcision this is commonly complained of and some prefer general anesthesia on that account. I have at no time used morphine, resorcin or other admixture in the solutions for local anesthesia.

In opening an abscess I have frequently resorted to an infiltration with pure boiled water, and when this was not at hand used air only. With a little care air will produce a very considerable degree of temporary anesthesia.

In using dilute solutions it is interesting to note how little of the drug suffices to annihilate pain. In the last six months I have operated upon four incarcerated inguinal hernia in men and one strangulate hernia in a woman. The incarcerated hernia contained in three omentum, and in one omentum and bowel. I experienced no difficulty in liberating them without great pain, and in two of these I removed a large lipomatous omental mass. In each case less than one-half grain of eucaïne was used. The strangulated hernia occurred in an old woman of eighty-two. It had been out for six hours when I saw her and could not be reduced by gentle manipulation. The bowel was enveloped in a piece of omentum, and black. In a few minutes after liberating the constriction at the neck it showed return of circulation and was returned to the abdomen. In this operation one-sixteenth of a grain sufficed. She complained of no pain and scarcely realized the severity of the procedure. In all these cases a radical closure was obtained. In operating upon simple hernia I found the procedure quite easy. Femoral hernias are as easily dealt with as inguinal. I have operated twice under eucaïne anesthesia for umbilical hernia in women with perfect results. In one the opening was as large as a quarter and in the other half that size.

I have been particularly impressed with the benefit accruing from the operation of partial thyroidectomy under local anesthesia. In exophthalmic goitre, where this operation is indicated, the nervous system and the marked loss of vascular tone make general anesthesia the chief danger of operation. Under the local this danger is reduced to a minimum. In this manner I have removed the half of the gland in six cases during the last year with most gratifying results. One-half grain of eucaïne sufficed in each case to perform the entire operation. In two of these cases, after the operation there occurred a mild tetanic convulsion and a momentary loss of consciousness. There was no evident vascular embarrassment at the time; the pulse was closely watched. This happening has been reported by others and is unquestionably due to expressed thyroid contents into the circulation by the manipulation of the gland. All the cases healed per primum.

With local anesthesia I have operated upon cases suffering from empyema with gratifying ease. The operation can be done upon fairly young children without complaint. I wish to report two cases out of the ordinary which were

relieved by operation under eucaine. The posterior tibials were involved. Neither patient could bear weight upon the foot or allow dorsal flexion. One resulted from riding with the weight upon a hyperextended foot and the other was due to a direct trauma. In both cases the diagnosis of tuberculosis was made by attending physicians. The nerve was exposed for six or seven inches in its course behind the internal maleolus and the foot put up in hyperdorsal flexion after freeing the nerve. Both cases were shortly able to walk after removing the casts. These were left on three weeks. This experience in handling these two cases suggests the possibility of handling the acutely painful foot following injury by a deep injection of a local anesthetic into the territory of the posterior tibial nerve.

An exceedingly difficult condition to handle at times is one where there is great irritability about the anus and lower rectum. In these conditions I have been rendered the greatest service by injections into the triangular open space at the lower end of the sacrum posteriorly. By this means I have operated upon several fissures and fistulas of the rectum.

I have tracheotomized the adult three times for the purpose of giving a general anesthetic afterward. Of the three, one with a cerebral lesion was the most interesting and deserves reporting. In this case three attempts were made to administer a general anesthetic with failure. At the time of excitement a general spasm would occur involving the muscles of the glottis and causing a pronounced cyanosis. After tracheotomy the anesthetic was given with a like general spasm, but the tube prevented cyanosis becoming greater than the more or less rigid chest wall would account for. During the entire surgical procedure there was not a moment when the rigidity let up. The lesion of the brain proved to be a degenerative one due to vascular disease.

In using an anesthetic upon a mucous membrane or open surface I rely wholly upon cocaine. I have never had any alarming toxic symptoms when used with care. The most annoying symptom is a slight nausea which quickly passes. I realize, however, its possibilities in the direction of producing marked poisoning and always use it cautiously. Let me call attention here to a method of using cocaine to anesthetize the urethra. After cleaning the area about the gland, place one-half grain cocaine in the form of a soluble tablet into the meatus. Dampen this with a drop of sterile water which makes a paste of it, then carry a bougie through this paste into the bladder. Let the bougie remain in the canal about three minutes. This will smear the cocaine paste along the canal and render instrumentation painless.

I am inclined to give chloroform whenever a general anesthetic is used, unless contraindicated. In the last two years I have been unfortunate enough to lose two patients from fatty degeneration following its use. In both cases the quantity used was small and the operation lasted, all told, less than an hour. The symptoms came in one after thirty-six hours and in the other commenced on the fourth day.

There is some choice in the character of mask used in the administration of chloroform; and I want to relate an occurrence which impressed this upon my mind lately. I removed an appendix from a young man during an interval between attacks. There was some little difficulty experienced. The amount of anesthetic used, according to the anesthetizer, was 90 cc. After the operation he was unusually somnolent and became conscious only after two hours and

twenty-five minutes. He awakened with marked nausea and vomited the entire afternoon. I noticed that evening when calling a reddish streak running down from the corners of the mouth, and thinking the nurse had not carefully cleansed the area after vomiting, cautioned her to be more careful. The next day I discovered the streak was a burn. A careful search into the conditions surrounding the case convinced me the burn was due to chloroform swallowed during the anesthesia, and the way it occurred was as follows: The mask used was a Schimmelbush pattern. The lower rim of these is made like a small gutter. Into this fits the wire rim which holds the gauze upon the mask. Any chloroform finding its way into this gutter would be prevented from evaporating by the lack of exposure to circulating air. In this particular mask a portion of its lower rim had been turned downward for the purpose of allowing the easy removal of the gauze. This gave it the appearance of a spout to a gutter. Any chloroform finding its way into the gutter would naturally gravitate toward this point and easily find its way to the mouth. The burn only cleared away after two weeks and for a month he was unable to hold food upon the stomach, but was fed rectally. There was at no time any abdominal disturbance due to the removal of the appendix.

I have tried faithfully to give children ether by the drop method, on an Esmarch mask, but I am not yet ready to yield chloroform for it.

THE BLOOD IN DISEASES OF THE DIGESTIVE TRACT.

BY ALBERT E. TAUSSIG, M. D., of St. Louis, Missouri.

The discussion of the blood changes found in diseases of the digestive tract may be either voluminous or very brief; the former because there is in this subject so much that is uncertain and disputed, the latter because there is so little of real diagnostic importance. The briefness of the time allowed me does not permit of a detailed discussion of the subject; that would require an hour or more. I can only take up one by one the most important diseases of the digestive tract and state concisely the blood changes there found.

Esophageal affections are not accompanied by significant blood changes excepting those produced by starvation. Even in cancer of the esophagus the resulting leukocytosis is usually counterbalanced by the diminution of leukocytes produced by starvation, so that we find here merely an anemia.

In gastric disorders it is chiefly cancer that produces a blood change of diagnostic significance. In many cases the blood shows no changes whatever. Where the disease is somewhat advanced, however, we always find a greater or less degree of anemia. This may be very severe. There may be present distorted red cells (poikilocytes), very small red cells (microcytes) and nucleated red cells (normoblasts); only very rarely, however, those excessively large nucleated or non-nucleated red cells characteristic of pernicious anemia. According to Henry the number of red cells in cancer never falls below one million per cubic millimeter, whereas in pernicious anemia we may have considerably less; but even to this rule there are exceptions.

Early in the disease before tumor is probable, leukocytosis is usually not found; in none of the cases which I have had occasion to examine was there a

leukocytosis present early in the disease. Later, when cachexia, tumor and the characteristic stomach contents rendered a blood examination superfluous, a leukocytosis is usually present, but even here it may be missed. Hemorrhage or perforation to be sure, always produce a very marked leukocytosis, but this is equally the case if these complications follow gastric ulcer, typhoid fever or other abdominal affections. Of somewhat greater significance is the absence of a digestive leukocytosis. Normally we find, two or three hours after a full meal, a decided increase in leukocytes. In most cases of gastric cancer, even early in the disease, this increase is absent or very small; sometimes, however, it persists until later in the disease. Moreover, in chronic gastritis and especially when accompanied by dilation, this digestive leukocytosis may be delayed or even absent. Nevertheless the absence of a digestive leukocytosis is so much more common in cancer than in gastritis, that its occurrence while not pathognomonic may well be considered a factor of considerable diagnostic significance when taken in connection with other signs and symptoms.

In gastric or duodenal ulcer an anemia is usually, though by no means invariably present. When there is considerable hemorrhage we always find a marked leukocytosis; this might easily lead to a confusion with cancer.

Atrophy of the gastric mucous membrane is always accompanied by an anemia. Occasionally this anemia is so profound that the blood shows all the changes of a pernicious anemia; we find an extreme diminution of the number of red cells, occasionally less than a million per cubic millimeter, a diminished amount of hemoglobin, not, however, quite corresponding to the oligocythemia, the presence of many of those large red cells called megalocytes, or even of nucleated megalocytes, the anemia being often far more profound than that occurring in cases of gastric cancer. Digestive leukocytosis, too, is usually absent. The condition thus closely simulates that sign in gastric cancer. In both we have absence of hydrochloric acid, presence of lactic acid, absence of digestive leukocytosis and blood approaching that of pernicious anemia. I have had occasion to observe two cases in which only the autopsy enabled a definite diagnosis to be made. Both were found to be cases of gastric atrophy. A well-marked leukocytosis would speak for the diagnosis of cancer; an excessive anemia with the number of red cells below one million per cubic millimeter would speak for gastric atrophy. Acute gastritis, too, is usually accompanied by a moderate leukocytosis; this may occasionally be of value in differentiating it from typhoid fever, in which an abnormally small number of leukocytes is usually found.

Hepatic disorders are usually not accompanied by significant blood changes, unless there is pus formation, as in cholecystitis, hepatic abscess, and the like, when we find the usually suppurative leukocytosis. In icterus the red cells are often swollen and show degenerative changes, but these are probably never of diagnostic importance.

Intestinal disorders accompanied by diarrhea produce a concentration of the blood; high specific gravity, high percentage of hemoglobin and an apparent increase in the number of leukocytes may occasionally cause an error in diagnosis. I myself have had occasion a number of times to make an interesting observation. Anemic patients with a low percentage of hemoglobin showed a marked rise in the latter after the administration of a brisk purge. This might lead to the conclusion that their condition had been improved, unless a complete blood examination showing a corresponding rise in specific gravity and number

of leukocytes was made. Weiss has made an interesting observation in cholera infantum the explanation of which is not clear. He found marked leukocytosis affecting the lymphocytes. In two cases the blood resembled that of lymphatic leukemia.

Typhoid fever I shall mention only in passing, as the discussion of the blood changes here belongs to that of the infectious diseases. For purposes of diagnosis the important feature in this disease is the absence of leukocytosis. The number of leukocytes is diminished very early in the disease, being below 6,000 in the majority of cases, whereas severe inflammation elsewhere in the digestive tract is usually accompanied by an increase of the leukocytes. Only where we have hemorrhage or a perforation do we have a leukocytosis here, as where these complications follow other lesions of the digestive tract.

The greatest interest in this portion of the subject attaches to the blood changes found in connection with appendicitis. In nearly all the cases we find an anemia of greater or less degree, but this is probably due to the general invalidism produced by the ailment and is not diagnostically significant. It is otherwise with the leukocytosis that is so frequently found. The presence or absence of the latter in appendicitis follow the same rules that govern its occurrence in septicemia or in abscess formation elsewhere. Non-purulent inflammation anywhere in the body is marked either by absence of leukocytosis or at the most by leukocytosis of moderate degree. Pus formation, on the other hand, is always accompanied by a very intense leukocytosis. The only exception to this rule is where the patient is so profoundly poisoned by the sepsis that the body is quite unable to wage any sort of efficient warfare against the intoxication. In such cases we find an entire absence of leukocytosis; occasionally there is even a leukopenia. Thomas v. Limbeck reports a case of profound sepsis in which the leukocyte count was under three thousand. These rules established by hundreds of blood counts, enable us readily to interpret the blood feature of appendicitis. If in a case in which the presence of pus is doubtful we find the normal number of leukocytes, or at least not more than 15,000 per cubic millimeter, we can safely infer there is no suppuration, and if the clinical signs confirm this conclusion we may be justified in postponing operation. If, on the other hand, we find more than 20,000 leukocytes (the count is often 40,000 or more), there is certainly an abscess forming and an immediate operation is indicated. Finally, if we have it to do with a certainly septic patient whose leukocyte count is normal or subnormal the prognosis is very bad, operation or no operation. Where the number of leukocytes ranges between 15,000 and 20,000 the interpretation of the count is doubtful and we can derive no certain conclusions from the blood examination. An exception is perhaps formed by those cases of chronic appendicitis in which the abscess cavity is very thoroughly walled off. Here no toxins are absorbed from the abscess into the general circulation, and we may have a normal leukocyte count in spite of the presence of pus. In such cases the blood examination may undoubtedly lead us astray.

In the differential diagnosis between suppurative appendicitis and other diseases that often closely simulate it, the leukocyte count is sometimes of assistance, sometimes not. Thus, simple colic, intestinal obstruction without gangrens, fecal impaction, typhoid fever, ovarian or pelvic neuralgia, floating kidney, renal or hepatic colic—all of which have been mistaken for appendicitis—we have no leukocytosis. In such cases a blood count may save us from an unnecessary

operation. On the other hand, general peritonitis, pus tube, cholecystitis, pyelitis and the like, since they imply suppuration somewhere, cause a leukocytosis, and here a blood count does not enable us to differentiate these from appendicitis.

To sum up: In esophageal affections there is usually no characteristic blood change. In gastric cancer the leukocyte count as such does not always give reliable information. The absence of a digestive leukocytosis, however, is significant, and would be more so if chronic gastritis with dilation, and especially gastric atrophy, did not produce a similar picture. The latter affection is often characterized by the interesting changes of pernicious anemia. The other gastric affections produce no distinguishing blood changes. Of the intestinal disorders, it is especially in appendicitis that the leukocyte count is of value. Here suppuration is characterized by a marked leukocytosis, though this may be absent if the abscess is thoroughly encapsulated. On the other hand, both a mild and a desperately severe case of appendicitis fail to produce a leukocytosis.

The examination of the blood then in diseases of the digestive tract, while it never gives us information so precise as to enable us to dispense with clinical observation, is often a valuable aid to diagnosis and should by no means be neglected.

REPORTS UPON RADIOTHERAPY: (1) CURE OF EPITHELIOMA OF THE TONGUE. (2) RESULT IN THE TREATMENT OF AXILLARY HYPERIDROSIS. (3) A CREAM PASTE FOR X-RAY BURNS.

BY MARTIN F. ENGMAN, M. D., of St. Louis, Missouri.

1. *Epithelioma of the Tongue*.—The patient, Mr. X., age fifty, was referred to me last June for diagnosis and treatment. The gentleman who sent the case had previously made the diagnosis of epithelioma, with which I agreed, but to make it more positive and to exclude syphilis, a month of energetic anti-luetic treatment was given without result. The lesion was situated upon the right side of the tongue, three inches back from the tip. It consisted of a flat, oval, slightly raised indurated plaque the size of a dime. The border was very distinct, hard and perceptibly raised above the rest of the lesion. At the center a fissure or crack cut into the substance of the tongue, but did not present any signs of ulceration. This plaque had been gradually increasing in size for some months, was painful when the tongue was freely moved or struck against the teeth. The appearance was typical of that of epithelioma from its superficial situation, the hard indurated feel it imparted to the finger, the pain upon slight trauma and its sharp button-like character. No glandular involvement could be detected.

Upon being told of the nature of the lesion, the patient consulted several excellent authorities in St. Louis and Chicago, all of whom made the same diagnosis, and recommended the excision of a part of the organ, to which he was greatly opposed, even to the excision of a piece for diagnosis. He, therefore, finally returned to my consultant and myself. As the plaque was very accessible to the rays when the tongue was drawn out, we decided to give radiotherapy a trial. The patient in a reclining position upon the left side, drew the tongue out as far as possible and held it. A lead mask covering the face and head was so molded that the part sweeping over the mouth fitted into the opening and at the

same time assisted in holding the tongue in place. Just over the lesion a window slightly larger than the lesion was cut.

A moderately hard tube was used at a distance of from three to six inches. The exposures ranged from five to fifteen minutes, and were given every other day for twelve days, and then daily. At the beginning only five minutes was given, but later ten, and finally fifteen minutes. The first series of exposures given in this way lasted for ten or twelve days, when the mucous membrane became gradually whitened until it looked as if it had been cauterized with a solid stick of silver nitrate. Then the treatment was stopped for a week, when the tissue regained its normal appearance and the lesion was less painful. A second series of daily exposures was then begun at distance and length of time before stated. In seven or eight days a rest was again taken, as the whitening of the mucous membrane indicated it. Ten days after this the appearance of the mucous membrane was again normal and the lesion markedly improved; it was smaller, flatter and the borders less indurated. During the last series I decided to thoroughly burn the plaque and surrounding part with the rays; therefore, the tube at each sitting was gradually brought closer to the mask until within three inches, and the length of time of exposure was gradually increased to fifteen minutes. After ten exposures thus given the surface exposed had a dirty white charred look and the tongue was quite sore. The patient was allowed to go to his summer cottage in the East with the warning that the soreness would probably increase for two weeks or more. At the end of two weeks the site exposed became painful and swollen, so much so that the patient consulted a surgical friend, who advised him to use a simple mouth wash and wait. In a few days after this the cauterized tissue sloughed away, and the wound quickly healed. When I saw the patient a month afterwards, only a very slight scar, almost a line, marked the site of the former lesion. It was smooth and soft as the rest of the tongue. It has been my misfortune to treat several epitheliomata in the cavity of the mouth, but all of them have been in an advanced stage, therefore without success. That more encouraging results have not been obtained by radiotherapy in cancer of the mucous membrane is no doubt largely due to their inaccessible position. The case under discussion was very accessible, and was treated early, before metastases had occurred. A year has now elapsed without any sign of recurrence or metastatic accidents.

2. *Axillary Hyperidrosis*.—Mr. S., age twenty-five, suffered from a severe hyperidrosis of both axillæ. The sweating at times was so profuse that his coat was wet at this site. Season seemed to make little difference. He noticed it was more marked when he was "nervous," as upon the approach of some very important business engagement. Mr. S. was a very neat, æsthetic and elegant fellow, therefore this excessive sweating, with its accompanying odor, was a source of great annoyance. He had tried all the usual remedies, formaline, chromic acid, etc., with only slight and temporary benefit. Upon the fact that the x-rays destroy the higher differentiated elements of the skin, like the hairs and glands, I suggested to Mr. S. the possibility that the rays might benefit him. He gladly and intelligently entered into the experiment. A sheet of lead foil was placed over the arm, chest and side, and a hole large enough to expose the axilla cut in it. A moderately hard tube was used at a distance of ten inches at first three times a week, and then daily for from five to fifteen minutes, gradually increasing the length of exposure. The case was carefully watched,

and as soon as itching or redness was noticed the exposures were stopped and a cooling cream applied until all symptoms subsided. Both axillæ were generally treated the same day. In this way we went cautiously on for some three months or more,* when the hairs fell out. Then a final erythema was produced with the rays, in fact, the part became quite sore, but did not vesiculate or become leathery. After the subsidence of all these symptoms the patient and myself were overjoyed to find that the improvement in the amount of the secretion remained permanent, although there was no apparent scarring. Several months afterward Mr. S. reported an improvement of from 50 to 75 per cent. of his annoying condition.

As a usual remedy for such conditions, the rays are certainly not to be recommended; in fact, unless the patient be an intelligent person and enters into the spirit of the experiment, it is a very risky procedure. I merely report the case as a unique use for the rays, and to illustrate its apparent selective action upon the glandular structure of the skin.

3. *A Serviceable Cream for the Treatment of Acute X-Ray Burns.*—Although I have never yet produced an accidental or severe burn with the rays, yet I have been called upon to treat several of a severe character made by those more unfortunate than myself. All of them have been of the second degree or milder, with one exception, a burn of the back, with small points of deeper ulceration. Therefore, as none of my cases have been deep, infection and ulceration were not factors to combat in their treatment, the indications being to stop the intolerable itching, assist repair and to keep the surface aseptic, for which the following dressing seems to be wonderfully successful:

R	Acidi borici.....	3xii
	Zinci oxidi.....	
	Amyli.....	
	Bismuth subnit.....aa	3i
	Ol. olivæ.....	3i
	Liq. calcis.....	3iii
	Lanolini.....	3iii
	Aquæ Rosæ.....	3xii

M.

The powder should be well rubbed up in a mortar and the lanoline added. The olive oil and liq. calcis are well mixed, then this mixture slowly added to the powder and lanoline, constantly stirring. When this is thoroughly mixed the rose water is added and the whole beaten up in the mortar into a light creamy paste. If there is much pruritus, 1 per cent. or 2 per cent. of Calvert's carbolic acid can be added to the whole.

In applying this creamy paste it should be spread on several thicknesses of absorbent gauze and laid over the surface and a sheet of gutta-percha tissue placed over it to prevent evaporation. The cream-paste is very cooling on account of the great per cent. of water it contains, and acts almost as a lotion without the disagreeable effects. I am indebted to Mr. W. R. Grant, the pharmacist, for his assistance in obtaining the proper proportions to make this formula a consistent cream-paste.

* Careful notes as to number of exposures were not made.

A CASE OF SUPPURATIVE PAROTITIS COMPLICATING PNEUMONIA.

BY C. J. MARCH, M. D., of Fordyce, Arkansas.

According to Norris, whose article in the *New York Medical Record* for April 20, 1901, is cited on page 182 of *Progressive Medicine* for March, 1902, only seventeen cases of the above mentioned complication of pneumonia had up to that date been reported. I wish to report another case observed in consultation with my colleague, Dr. W. L. Worthington, of Fordyce. On January 8, 1902, Mrs. R. C. H., aged fifty-seven, housewife, had a severe chill, attended by pain in right side of chest and followed by high temperature, cough, viscid brick-dust sputum and the other usual signs of the onset of a severe attack of croupous lobar pneumonia. The disease ran a rather tardy course, resolution not beginning until about January 21st. On or about January 24th the right parotid gland began to swell and became very painful. The swelling increased steadily in spite of appropriate treatment till February 8th, when fluctuation appearing at the upper end of the gland an incision was made and a small quantity of thick pus evacuated. The suppurative process continuing until the whole gland was converted into a sac of pus, a counter opening was made at the lower end of the gland, allowing free evacuation of the contents of the abscess cavity. The abscess cavity was washed out with hydrogen peroxide and antiseptic dressings applied twice daily for two weeks, then once daily until the purulent discharge ceased, about thirty days after the second incision. The patient had a long and tedious convalescence, but finally made a good recovery.

CORRESPONDENCE.

EDITOR INTERSTATE MEDICAL JOURNAL:

I wish to take exception to the spirit of an editorial on the variola organism which appeared in the June number of your journal. I have followed, with a great deal of care, the successive publications of Councilman and his students, from the first announcement of his work, which appeared in the *Boston Medical and Surgical Journal*, to his most recent communication before the Congress of Physicians and Surgeons at Washington. The writer of the editorial in question has evidently been guilty of at least two errors which should never influence any scientific paper or any scientific criticism. First, he has objected, with a certain assumption of authority, to a piece of work which, as he confesses, he has only read in an incomplete form. Second, he has allowed a prejudice against the results which Councilman has obtained to influence him. To the average reader the papers which have appeared by Councilman and his pupils seem to be permeated with a spirit of modesty and conservatism, which is as rare as it is admirable. Nowhere does Councilman claim more for his work than his results seem to justify. At no point does he dogmatize, and in no place does he prophesy. He expressly says that there are gaps in his work, and he points out just where they are and how they may be expected to be filled. It is the consensus of all editorial opinion which has appeared on the Councilman work, that no great discovery in medicine has been so modestly and so conservatively set forth. The objection to the use of the term "protozoa" by the writer of your editorial is unfounded, for this reason: among those present at the first reading of the paper by Councilman at the Harvard Medical School was Professor Calkins, the biologist of Columbia University, who pronounced Councilman's organism a protozoa. The authority of so well-known a zoologist is a sufficient proof of the correctness of Councilman's classification of the organism. The work of Councilman has the endorsement of Professor Welch, who has come to be looked upon as the Nestor of pathology in this country. Such an endorsement means at least that the work is conscientious, thorough and clean. The criticism as advanced in the editorial denies to the work of Councilman either the spirit of scientific inquiry or the endorsement of men whom we are accustomed to regard as the leaders of scientific medical thought. To a broadly cultured scientific mind there is nothing inherently impossible in any theory advanced experimentally. The truth of any proposition should not be influenced by any preconceived opinion, but should be dependent solely upon the data which are set forth in its support. Such data were not in the possession of the writer of the editorial in question, by his own confession, and in so far there can be no just criticism of Dr. Councilman's work.

This protest is not that of one who has any special knowledge on the subject of Dr. Councilman's work, but it is that of one who is deeply interested in all that speaks for progress in medicine, and if any work of recent years comes under the latter head, it is that of Councilman on the organism of variola. It is to be deeply regretted that some of your readers may learn of Councilman's work for the first time from the unjust editorial of your June issue. To counteract, if possible, any such first impression, even to a slight degree, is the purpose of this letter. *

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EDITORIAL COMMENT.

THE THIRTY-FOURTH ANNUAL REPORT OF THE ST. LOUIS INSANE ASYLUM.

This report emphasizes the difficulties which the superintendent has had to overcome and the use that he has made of the very limited opportunities which have been afforded him. The institution was built in 1870 to accommodate a maximum number of three hundred patients and at present there is a daily average of six hundred and seventy-six patients. The facilities in respect to space have scarcely been increased since the early days of its existence. From this fact it can be seen under what a disadvantage in respect to overcrowding alone Doctor Runge has had to labor. There is one characteristic of this report which can be strongly commended, and that is the absolute spirit of truthfulness with which it has been written. Inasmuch as there are no facilities for scientific laboratory work provided, no attempt is made to do any, or rather no record of such work finds a place in this report. The stand is taken, and well taken, too, that for the proper carrying out of any work of research in neuropathology adequate laboratory equipment must be provided, and a resident neuropathologist must be placed in charge. When it is known that the institution is so overcrowded that there is not space enough for such a purpose, even if the other conditions were fulfilled, then the wisdom of leaving this side of the question untouched is apparent. It is the custom in many insane asylums to include in the annual reports papers purporting to be contributions to neuropathology. The purpose for which this is done is to add a certain air of scientific progress to the publication of the asylum. Too often such work is misleading and useless, and its purpose is too apparent. That there is no laboratory work done in the St. Louis Insane Asylum is to be deplored. This, however, is not the superintendent's fault, but is due to the wholly inadequate resources which are placed

at his disposal. The standpoint which the author of this report takes on the relation of an insane asylum to the other charitable institutions of a large city is worthy of notice. Such modern developments of an awakened civic spirit as play-grounds, public baths, kindergartens, etc., would at first sight appear to have little to do with the care of the indigent insane, but when examined closer in the light of Doctor Runge's comments, the connection is seen to be a very intimate one. The improvement in the hygienic surroundings and moral conditions of the slums will lessen the number of a city's insane poor, and further than this, will so increase their power of physical recuperation that, when they are the subjects of insanity, their chances for improvement or cure are infinitely better.

The insane asylum, in its broadest sense, must be looked upon as the permanent home of a large proportion of all the insane poor of the city, and in this respect it bears an intimate relation to all other agencies which work for the improvement of a city's indigent population. The author again makes, in this report, an eloquent appeal for a more generous appropriation for his institution, and he does well to base this appeal upon the city's progress towards the new St. Louis. It is often asked what is the fate of the chronic insane, crowded out of their rightful home by the constant influx of acute cases. To the regret of all, it must be said that at present eight hundred and seventy of them are sent to the poor house. This is a non-medical establishment, with a non-medical head. In this place are grouped together, without any attempt at classification, and for no purpose of treatment, epileptics, idiots, imbeciles, secondary dements, and all conceivable varieties of the chronic insane. Here they spend their lives without a chance for the improvement which might be given them if they were a part of the asylum itself. Doctor Runge makes an appeal for the unification of these two departments under one roof and under one head.

The annual report of the insane asylum is almost the only channel by which the physicians in the city can come in touch with that institution. Comparatively few of them know of the efforts that are there being made towards the better psychical treatment of the insane, or of the obstacles which are there daily met with and which are so often and so courageously overcome. The existence of so great a clinical material is scarcely realized by the physicians of this city, who now and then, in the course of their daily work, have occasion to add to its numbers. The use of this great institution for the progress of psychiatry can only come about when its needs in a practical way are met, and the first and strongest impulse toward this end must, after all, come from the body of medical men of the city. This report, therefore, is the only appeal and is the most forceful one which the superintendent can make for this purpose, and as such it deserves the attention and respect of every physician who is at all interested in the progress of medicine here.

RADICAL CURE OF CANCER OF THE RECTUM.

It takes time to establish or disprove the validity of any man's claim that his operative procedure is the proper one in the treatment of this or that pathological process. How common it is, as the years pass, for a certain operation to be modified by one surgeon and then by another, until a perfected technique has rendered truly valuable a principle which brought many a disappointment to its originator in his earlier experiences. So it has been with the operation des-

signed for the radical cure of cancer of the rectum; the earlier crude excision by the sacral route, with its mortality of forty per cent. in the hands of Kraske himself, is a far different matter, as far as technique and results are concerned, from the combined abdominal and perineal operation, though the principle has remained the same. Gaudier, of Lille, France, and the Mayos, of Rochester, Minnesota, are among the leading exponents of the last-named procedure; and it is to C. H. Mayo that we are indebted for a most exhaustive and logical review of the various steps which have led up to the present perfection of technique in this direction. At the St. Joseph meeting of the Western Surgical Association, Mayo told how the various pioneer operators have striven since 1870 to make the surgical treatment of this affection more radical, and at the same time to surround it with the same safeguards which obtain in the treatment of this dread affliction in other parts of the body. In order to arrive at the best results, long series of cases had to be studied, and each succeeding operator had to profit by the mistakes of his predecessors, until finally sepsis was eliminated by dividing healthy bowel high up and closing both ends; secondary stricture and incontinence were avoided by discarding the anal orifice and substituting the inguinal, while at the same time complete removal, hemostasis and speed in operating were all favored by the combined operation, viz., first, a laparotomy, and then the perineal operation in addition to it.

CANCER OF THE PROSTATE.

The evolution of the surgery of the prostate, while gradual, has been nevertheless striking, and it is not surprising that a disease like cancer of this organ should be subjected to an operative procedure.

Heretofore we have stood helpless before malignancy of the prostate, offering nothing better to suffering humanity than a permanent suprapubic opening of the bladder for drainage to relieve the pain of urination. While it is true, indeed that the organ has been attacked surgically, the results have been so discouraging that few have attempted it. In no disease is an early diagnosis more imperative than in cancer, and it is unfortunate that the facilities at our hands are so meager, and the symptoms so obscure, that there is no way of coming to a positive conclusion early in this disease. In this line, of much interest are the two cases of Pousson, which Oraison quotes in the May 1st number of the *Ann. des Mal. des Org. Genito-Urin.*

Recognizing the benefit given by total perineal prostatectomy, Pousson has taken advantage of this improved technique to remove the prostate in cases of beginning cancer, with such good results that we may hope that others will be impelled to undertake the procedure and further develop it. Oraison has called attention to the fact that cancer of the prostate is, relatively, a quite frequent disease, and that many of those which are supposedly hypertrophy are in reality malignant, and are especially of that variety known as circumscribed cancer. According to him, cancer of the prostate occurs under two forms: the circumscribed, where it has not passed the limits of the capsule; and the diffuse form, which has been well described by various authors and which, before now, has been the kind generally operated upon. In the first form operation is justifiable and effective, while in the second, where it has passed the limits of the capsule, it is contraindicated. We hope that the symptoms and means of diagnosis will be more closely studied, and some method of recognition of the disease in its incipency developed which may enable the surgeon to recognize and remove it before the limits of the capsule have been passed.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Traumatic Albuminuria.—ENGEL (*Berliner Klinische Wochenschrift*, 1903, No. 10).—A young man was thrown from a horse, and injured his right side. A urinalysis very soon afterwards showed the presence of 2 to 3 per cent. of albumin, and a trace of sugar. There were no morphologic elements in the urine. The patient remained in bed on account of the pains in the side. The albumin disappeared on the following day, and the sugar four weeks later. The urine of this patient had been examined several weeks prior to the accident, and was normal in every respect. The author believes that the injury, even though a slight one, was responsible for the albuminuria, and suggests that probably many of the cases of albuminuria in apparently healthy individuals, are due to slight injuries that have been overlooked.

A Case of Nephritis Parenchymatosa Syphilitica.—ULUEHLIG (*Muenchener Medicinische Wochenschrift*, No. 12, 1903) presents this case in answer to the question raised by Wagner in Nos. 50 and 51 (1902) of this journal. He raised the question as to whether or not a parenchymatous nephritis ever occurs in the secondary stage as a result of syphilis, as does interstitial nephritis in the tertiary stage. In the case here reported an acute parenchymatous nephritis developed in a twenty-six-year-old individual two weeks after the appearance of a hard chancre, and five weeks after the coitus. The secondary lesions appeared eight weeks after the primary lesion. The nephritis yielded promptly to treatment with mercurials, after other methods of treatment had failed.

Cylindruria and Albuminuria in Erysipelas.—POLLATSCHEK (*Centralblatt fuer Innere Medicin*, No. 20, 1903) finds that in 38 per cent. of the cases of erysipelas there are evidences of a kidney lesion. This may manifest itself in albuminuria, or cylindruria, or both. The existence of a great deal of albumin, with casts, etc., in the sediment may be purely transitory, and does not justify, in itself, a bad prognosis.

A Case of Fibrinuria in Nephritis.—LOSTORFER (*Wiener Klinische Wochenschrift*, No. 7, 1903) reports a case of nephritis in which the clear, light yellow urine contained large pieces of coagulated fibrin. They were passed without any difficulty on the part of the patient. The urine was so rich in albumen that it could not be determined by the Esbach urinometer, without dilution.

Recent Observations Concerning the Etiology and Treatment of Hay Fever.—THOST (*Muenchener Medicinische Wochenschrift*, June 9, 1903).—Dunbar has demonstrated the existence of a poison in pollen which he believes to be the cause of hay fever. He succeeded in producing, even in winter, the symptoms of hay fever in those disposed to it and was not able to influence those who were not predisposed. The pollen is dissolved in ether and the toxin is precipitated with alcohol.

This poison is especially easily dissolved in saliva, tears, nasal mucus and in blood serum. When the toxin is introduced into the nose and eyes of those disposed to hay fever it produces sneezing, itching, tearing, etc. If introduced

subcutaneously it produces, aside from hay fever symptoms, dizziness, hoarseness, pain in the chest, audible breathing, etc. At the point of injection there occurs a marked swelling.

Serum was taken from animals that had been inoculated with this poison and injected into those disposed to have hay fever. After this they showed no reaction whatever to fresh pollen applied to the nose, eyes, etc. The immunity lasts for little more than twenty-four hours.

If serum is mixed with the pollen toxin it is practically rendered inert, and produces no symptoms if injected hypodermically, or applied locally to the nasal mucous membranes. Some animals show a greater susceptibility to the poison than do others—goats and rabbits being especially susceptible.

A series of experiments have been carried out recently on a large number of patients with very positive results. Whether or not this serum acts in the same way upon regular hay fever patients, as it does upon those artificially produced with the pollen toxin, can only be determined during the hay fever season. Even though it may not alleviate all of the symptoms in every case, it will at least enable us to differentiate between the true and false hay fever. The author believes that the Dunbar pollen toxin and antitoxin proves conclusively that hay fever is nothing more than an idiosyncrasy of certain persons against certain pollens. The hay fever period in Hamburg is from June 3d to the latter part of July. In North Germany this is simultaneous with the blossoming of rye.

The antitoxin was found to have no effect on cases of bronchial asthma, influenza, and nervous affections of the upper respiratory tract.

Before the hay fever season begins, patients having other complications, gout, circulatory disturbances, etc., must be treated for these disturbances in order to be able to resist the attack.

Local applications of cocaine, eucain, adrenalin, etc., may be made to the conjunctiva. Nasal douches are in some cases very advantageous.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Results of One Thousand Operations for the Radical Cure of Inguinal and Femoral Hernia.—COLEY (*Annals of Surgery*, June, 1903).—Communications are always eagerly welcomed from Coley, whose experience has been much larger than that of any other man in America. In three hundred and seventeen of the cases here described, the patients were over twenty years of age, but the author does not admit that his excellent results are in part due to the fact that a large majority of his patients are under the age mentioned. He claims, on the contrary, that it requires the best method and the best technique to get as good results in children as in adults. Of his two hundred cases in the female not a relapse is recorded, nor did a patient die; certainly an enviable record. Eleven out of nine hundred and seventeen cases in which the cord was transplanted according to Bassini, relapsed and some were reoperated; but a little more than 1 per cent. These observations, which cover a period of eleven years in some cases, go to show that most of the recurrences may be expected in the first year, and that a patient who remains well for two years may be considered permanently cured. (Most authors say three or five years.) There is surely a great advantage to be drawn from a study of the author's cases which relapsed, though the histories cannot be given here in full. In his chapter on the technique he declares that he has discarded not absorbable suture material; he uses the

Bassini method with the exception that an extra suture is placed in the muscle above the cord. His patients are kept in bed for two weeks and wear a support for four weeks. As to the indications for operative treatment, it may be said in general that the author does not advise it in patients under four, but does recommend it in all others under fifty, unless there be a strong contraindication.

Massage of the Bared Heart in Chloroform Collapse.—ZESAS (*Centralblatt fuer Chirurgie*, No. 22, 1903).—Nothing of this kind had even been heard of until 1898, when Tuffier made an attempt to bring the dead back to life, with but temporary and transitory success. Twelve such cases in all are on record, and in but one was it possible to prolong life for a period as long as eleven hours. It seems that the heart can be exposed without the pleura being opened, still it is not the author's idea that the prognosis in such cases will ever be improved by any such procedure. [Why then after so many trials should the cadaver be mutilated in future by such apparently futile endeavors?—REV.]

Involvement of the Internal Mammary Lymphatic Nodes in Cancer of the Breast.—CLERMONT (*Archives Provinciales de Chirurgie*, Tome xii, No. 6).—The patient whose condition is described had a tumor in the median portion of the breast, but no lymphatic involvement of axilla, etc. But just above the sternum there was a small, hard mass to be felt, this same reaching down behind the bone. At the patient's request the tumor was removed for cosmetic reasons, in spite of the intra-thoracic involvement. The immediate results of the operation were all that could be desired, but eight months later the patient succumbed to cancer of the liver. The observation of this and similar cases forces the writer to certain unavoidable conclusions. In the first place, the connection between the breast and the lymphatics of the internal mammary region is proven by anatomical studies; then this may shed light upon the fact that visceral metastatic lesions frequently follow carcinoma of the breast, though there may never be any involvement of the external (axillary) nodes. In conclusion, there is stated the desirability of an early diagnosis of intra-thoracic metastases, with the suggestion of operative treatment. (Such an operation has been done by Dr. Cushing at the Johns Hopkins Hospital; the lymphatic chain was followed down after removing diseased nodes in the neck.)

A Carcinoma of the Breast Successfully Treated with the Roentgen Rays.—MIKULICZ and FITTIG (*Beitraege zur Klinischen Chirurgie*, Bd. xxxvii, Hft. 3).—All of the older means of fighting cancer simply acted like the knife, inasmuch as they were simply intended to destroy the tissues. There was nothing like a specific action, since healthy and diseased alike were dissolved by the pastes, etc. Thus, in a sense, the x-rays open up a new field, since they may be said to exert a sort of elective action upon the cancer cells or tissues alone. In the case under discussion the lymphatics of both axillæ were first cleaned out, and then a specimen for diagnosis was removed from the ulcerating mass; this was proven by the microscope, it may be added, to be cancer. Four weeks later, the x-ray having been applied continually meanwhile, the ulcer had become epidermized in the usual manner, and the microscope showed that there were now no cancer particles in the tissues examined at this time. Surely a remarkable as well as an interesting discovery. It is remarkable that the rays work to a much greater depth in one individual than in another, and it would seem to be the connective tissue which offers a resistance, not the epithelium. In the present case the mass was ulcerated; hence the rays could reach it, and the change which is said to take place consists in a degeneration of the cancer epithelium alone. In conclusion, it is affirmed that the knife must remain the remedy for all such tumors unless they be very superficial or very slow in growing.

The Embolic Transmission of Projections.—SCHLOFFER (*Beitraege zur Klinischen Chirurgie*, Bd. xxxvii, Hft. 3).—The case here presented can safely be said to be the only one of its kind on record. A man tried to commit suicide by shooting himself in the left breast. When seen, a few hours later, he was in collapse; but what struck the surgeon especially was that the left radial pulse could not be felt at all. When the man revived he complained of great pain in the affected member; it was cooler than the other, and in various ways it became evident that there was a serious impediment to the flow of arterial blood into the part. The manifestations of an ischemic paralysis also appeared, and then the author, in seeking for the bullet, detected a hard, round object just outside the thorax, where the subclavian artery goes into the axillary. Under the influence of massage and other treatment the condition of the arm slowly improved, while the radiograph showed the resistance above referred to, to be the projectile. As time went on an infection occurred in the vicinity of the ball, so it was considered best to remove it; whereupon it was proven to lie within the artery, as had been suspected.

Another interesting case is detailed by the author, of a man who was shot in the upper third of the thigh, and the ball removed from the posterior tibial artery. In all the literature there exist ten cases in which a ball was shot into the lumen of the circulatory apparatus and then carried to another point, but the above instance (axillary artery) is the only one in which the patient escaped with his life.

Experimental Investigations Concerning the Increase or Decrease of Germs in Accidental Wounds Under the Influence of Dry or Wet Dressings.—GONTERMANN (*Archiv fuer Klinischen Chirurgie*, Bd. lxx, Hft. 2).—After exhaustive experiments the author comes to the conclusion that there is no evidence that germicides actually retard the growth of bacteria in a wound. At the same time the bacterial increase in a fresh non-suppurating wound is favored by wet more than by dry dressings. Iodoform gauze is the best dressing for accidental wounds; by being a good hemostaticum it favors asepsis. Wet dressings cause eczema and abscesses in the hair follicles, through the skin being macerated. Wet dressings do not guarantee that a wound will not suppurate. When a wound is once full of pus, the number of germs decrease more rapidly under a dry than under a wet treatment. Many accidental wounds which are full of germs, heal without any sign of what we term clinically, inflammation. [The above article is from the great v. Bergmann clinic in Berlin; it has long been the custom there to use dry dressings for everything, in view of which fact, it is almost ludicrous that they should now cause experiments to support a position which the rest of the surgical world has long since found to be untenable.—REV.]

The Operative Therapeutics of Dangerous Hemorrhage After Tonsilotomy.—BURKARD (*Wiener Klinische Wochenschrift*, No. 22, 1903).—The ligation of the common carotid as well as the ligation of the external carotid is fruitless usually in the treatment of this affection, and anatomical relations teach us why this is so. It does no good to ligate the external, because the tonsillar is often a branch of the ascending palatine, which in turn originates from the ascending pharyngeal, an artery that often comes from the common or internal carotid. Then rich anastomoses with the descending palatine as well as the vessels from the other side, make ligation of the common carotid useless; and all admit that it is dangerous. The best remedy that has been suggested came from Prof. Nicoladoni, viz., to excise (from without) the stump of the tonsil, and then to sew up the defect with deep through-and-through sutures which shall include all the component tissues of the pharyngeal wall, thus catching the bleeding vessel itself.

Contribution to the Surgical Treatment of Varicose Ulcer of the Leg.—BRAULT (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, Tome xxix, No. 21).—While simple ulcers of the leg are greatly benefited by skin grafting, this is by no means sufficient in case there are varicosities at the bottom of the trouble; here the surgeon must attack the cause of the trouble, and it is to be sought in the veins affected and the nerves which supply the affected area. The author is an adherent of the circular (partial) incision below the knee and ligation of all the veins met with. Some do an open operation and let the wound heal by granulation, but this procedure is too slow, and besides the scar often results in a serious constriction. Brault recommends simply a "horse-shoe" shaped incision behind and internally, believing that all the important veins are divided by such an one, provided it is carried to the proper depth. It has been his experience that the incision is usually well in a week, and the ulcer covered with epithelium in about two weeks. Seven cases in which the operation was performed are related, and the results seem to have been most satisfactory.

Spinal Paralysis Caused by a Sarcoma of the Sixth Dorsal Vertebra Cured by Operation.—ISRAEL (*Berliner Klinische Wochenschrift*, No. 22, 1903).—Three months after the motor symptoms commenced in this case there was complete paralysis of both legs as well as trouble with the urination. In the article it is beautifully shown how the diagnosis was made between an intra-medullary and an extra-medullary affection, but it was impossible to say whether or not the trouble was in the dura or in the vertebra. Focal symptoms allowed the author to localize the tumor at about the height of the sixth vertebra, a fact which was confirmed by the operation, which resulted in the cure of the patient. There was found a spindle-shaped mass about three centimeters in length which, on account of its consistence, could be removed only by the use of the curette. At the same time the vertebra was seen to be involved, and in the effort to remove all the affected bone the pleura was opened, though this latter accident did not seem to affect the patient in the least. Recovery after the operation was so rapid that the individual was able to stand within three months, and soon after to walk alone. Eight months after the same the woman was in splendid shape, there being no sign of a recurrence.

Necrosis of the Gall Bladder.—CZERNY (*Muenchener Medicinische Wochenschrift*, No. 22, 1903).—The bacterium *coli communis*, which causes most of the diseases of the appendix, is also responsible for similar conditions in the gall bladder in many instances. However, when we have to do with gangrene in total or partial of this last named viscus, then we must presuppose an extensive circulatory disturbance.

The author describes two cases in which this rather rare lesion was present. In the first, the mucous membranes, as a whole, was cast off; and in spite of a timely operation, with free gauze packing and drainage, the patient died as a result of the formation of a subphrenic abscess. In a second case the mucous membrane was also necrotic, but here the patient recovered from the first operation only to have to undergo a second for the relief of symptoms caused by a stone being left behind in the cystic duct. Neither of these cases had presented characteristic symptoms, so they are properly relegated to the class which our author terms "cholecystitis larvata." Czerny is not as radical in his method of operating upon these cases as are most surgeons of the present day. In fact, he even admits that he may not go far enough in many cases, as he certainly did not in the two under discussion, when it would surely have been advisable to remove the gall bladder in its entirety. His custom in most cases is to close the gall bladder around a rubber drainage tube and thus get a fistula, which he declares usually heals in about three weeks.

The Function of the Upper Extremity After Total Removal of the Scapula for Sarcoma.—QUENU and RENON (*Revue de Chirurgie*, 1903, No. 4).—The authors are to be congratulated upon the fact that they conserve all the movements of the arm after an operation so mutilating as the above. The form of the shoulder is, moreover, not so much changed as not to be amenable to perfect repair at the tailor's hands. The head of the humerus is firmly fixed in its new position, and the way the happy termination of the case has been brought about will become apparent as we proceed. Radiographs taken before and after the operation are interesting to look upon. After the removal of the bone, the head of the humerus was fastened by a silver wire to the drilled clavicle, and the soft tissues of the vicinity sewn to other portions of the capsule; and it is worthy of note that the bone has remained in the new position, a fact which must in a great measure explain the good appearance of the part as well as the excellent functional result. The patient is in such good shape (less than a year having passed) that he can now work as a telegraph operator. A study of the literature shows that twenty-five of thirty-nine such cases have turned out satisfactorily, and in all of these the humerus capsule was fixed in the desired new position. It is also important to mention that the muscles were treated in the following way by Quenu: the latissimus dorsi was sewn to the deltoid and rhomboidii, while the trapezius was also sewn to the deltoid.

The Diagnostic Value of the Leucocyte Count in Appendicitis.—STADLER (*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Bd. xi, Hft. 3).—The author concludes that the leucocyte increase or decrease depends upon the tendency of the disease to progress or to become limited. Lists of cases show that the temperature has nothing to do with the matter; that is, leucocytes may increase while the temperature falls, or the reverse may occur. Not so much depends upon the height of the count itself as upon the increase of the leucocytes or upon the persistence of a high number. Our author agrees with most other writers in the opinion that the blood count furnishes us with the surest of all the clinical symptoms of the presence of pus in appendicitis. Further, it has the same value in determining whether or not we have evacuated every cavity, and also informs us if we have left circumscribed collections behind. What has been said applies only to the acute stages of the disease; small collections which have become thickly encapsulated may, in the course of time, reach a point where they fail to give the characteristic reaction. In general peritonitis the number will never rise, or, if it has risen, will fall rapidly to a point below the normal, thus furnishing us with the information that the number of leucocytes is, after all, but an index of the patient's resistance.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Clinical Observations With Aronson's Antistreptococcus Serum.—FRITZ MEYER (*Zeitschr. fuer diatetische und physikalische Therapie*, April, 1903).—When Aronson published his first article on antistreptococcus serum last July, new hope arose in the breasts of all clinicians who had hitherto had only unfortunate experiences with such sera. The publication contained an account of an enormous number of animal experiments which seemed to prove beyond question that a potent and, it was to be hoped, a valuable serum had been produced. It had been produced as follows: Mice were inoculated with a streptococcus obtained

from scarlatinal tonsils, and by means of a very large number of passages through mice an extremely virulent streptococcus culture was obtained. This virus was injected into horses in continuously increasing doses, and after months of such treatment a serum was obtained so potent that 0.01 c.c. sufficed to protect a mouse from twenty times the fatal dose of virus. It was even possible to heal an animal that had already developed a severe infection.

Since the possible ill effects of the serum had not yet been disproven, Meyer used only small amounts, never more than 20 c.c. Of course, only such cases were selected in which the infection was unquestionably due to streptococci. In all eighteen cases were treated. Of these, an unquestionable cure was obtained in five, in two the effect was doubtful, while in eleven no beneficial effect was obtained. The five cases first mentioned were as follows:

CASE 1.—Facial erysipelas, five days old; rapid fall of temperature within twenty-four hours after the injection, and complete recovery twelve hours later.

CASE 2.—Facial erysipelas, ninth day. Complete recovery within twenty-four hours.

CASE 3.—Facial erysipelas, thirty-first day; complete recovery, twenty-four hours after the injection.

CASE 4.—Double tonsillitis with purulent exudate; complete recovery twelve hours after the injection.

CASE 5.—Puerperal sepsis, seven days after labor and four days after the beginning of the fever; injection of 20 c.c. serum; the next day pulse and temperature were normal and the patient felt well; on the following day again a rise of temperature with weak and rapid pulse, whereupon a second injection was made; on the next day, the pulse and temperature were again normal and patient felt well. A subsequent relapse could not be combated on account of a temporary lack of serum and the case ended in slow recovery, the temperature falling by lysis.

In the two uncertain cases, the injection seemed to be followed by improvement, but the latter was not unmistakably due to the serum.

The last group consists of the patients whose illness was not influenced by the serum. There were three cases of erysipelas, two of scarlatinal rheumatism, and six of severe general sepsis. The last were of such a character that when they first came under treatment they appeared quite hopeless, so that the failure of the serum to influence the disease was to have been expected. In none of the eighteen cases did the serum produce any ill after-effects.

The above results are very encouraging. The observations were carried out in a keenly critical manner, and indicate that the serum, while not able to work miracles, is of distinct value in the treatment of streptococcus infection.

Leukemia and Miliary Tuberculosis.—H. QUINCKE (*D. A. f. kl. Med.*, Vol. 74, Nos. 5 and 6; *Die Heilkunde*, February, 1903, p. 71).—Prof. Quinke reports two cases of medullary leukemia and one of pseudo-leukemia, all of which were complicated by the coexistence of an acute miliary tuberculosis. After the development of definite tubercular symptoms, the leukemia underwent a retrogression, the spleen became smaller, the white corpuscles became normal in number, disappearing through disintegration and solution, so that finally the blood picture was merely that of a secondary anemia. In all probability the tubercle bacilli, like all other pathogenic micro-organisms, produced toxins either by themselves or through their action upon the cells of the body; these toxins, however, instead of producing a hyperleukocytosis and splenic tumor, as do other pathogenic bacteria, seem to have a destructive influence upon the white corpuscles. Since we have in tuberculin at least a portion of these toxins, its therapeutic use in leukemia might be worth a trial. It is not impossible that by its means the excessive leukocyte forming activity of the bone-marrow and the lymph-glands might be checked.

The Therapy of Relapsing Fever.—DR. JUSTIN KARLINSKI (*Wiener Klin. Wochenschr.*, No. 15, 1903).—The spirillum of relapsing fever has thus far yielded only to remedies that act deleteriously on the constitution of the patient. Karlinski observed, however, that common salt aided greatly the agglutinating power of the blood serum of such cases and so prevented a relapse. Subcutaneous transfusion of 1250 cu. cm. of a one per cent. salt solution was tried in four cases with good result. In no case did a return of the fever occur.

On the Therapeutic Value of Heroin.—DR. A. CRHA (*Die Heilkunde*, May, 1903).—The usual dose employed by the author was three milligrams two or three times a day. He employed it particularly in cases of phthisis and laryngeal tuberculosis with excellent results. He found it of little service as a hypnotic. Its special advantage over previously employed remedies lies in its acting in smaller doses: Six to eight drops of a 1 per cent. heroin solution work as effectively as fifteen drops of a 2 per cent. codeine solution and the action of 3–5 mg. heroin = 0.01 gm. morphine. The habit is acquired very slowly. Above all, it does not cause digestive disturbances.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

Die Bekaempfung der Malaria.—ROBERT KOCH (*Zeitschr. fuer Hyg. u. Infect. Krankh.*, Vol. 43, Heft 1, 1903).

Die Malaria Bekaempfung in Brioni (Tstrien).—P. FROSCH (*ibid.*).

Die Bekaempfung der Malaria in Puntacroce.—BLUDAU (*ibid.*).

Bericht ueber die Malariaexpedition in Deutsch Suedwest Africa.—VAGEDES (*ibid.*).

Die Bekaempfung der Malaria.—OLLWIG (*ibid.*).

Die Bekaempfung der Malaria in der Maremma Toscana.—P. GOSIO (*ibid.*).

Ueber die Verhuetung eines Malariaausbruches in Wilhelmshafen.—E. MARTINI (*ibid.*).

Beitraege zur Keuntniss der Anopheles.—D. DOENITZ (*ibid.*).

It is another monument, *ære perennius*, that Robert Koch has erected for himself by the direction of the enormous work reported in the above named publications, the results and consequences of which will be so far-reaching that we at the present can hardly realize them. Following the discovery of the relation of mosquitoes to the etiology of malaria, very soon plans were laid to exterminate the disease. Carried along by their enthusiasm, the majority of the investigators could only see that the anopheles was the propagator of the plasmodia, and that its extermination would naturally mean the death of malaria. From this thought arose the fight against mosquitoes on which, till today, in most countries, so far as they have taken up the fight, the greatest stress is laid. In fact, it is the general conviction that not before mosquitoes are annihilated will malaria cease. Practically, this conclusion is of course correct; the question is, whether we will ever be able to deal in this way successfully with the mosquitoes. Aside from the question of financial capacity, the point has to be well remembered that it may be possible to prevent the breeding of mosquitoes in circumscribed localities, in cities, etc.; but it is a fact that it is altogether out

of the reach of our means and would be against our own interests if such an extermination should be extended over almost the whole surface of the globe, which would be necessary. The extravagant hopes and plans made, for instance, for New Jersey, were conceived wildly, and by this time the immense task that they would involve begins to become disagreeably felt.

Koch had long since seen that this method was impracticable and never would be successful. We can master, as we call it, our earth, but in order to do away with mosquitoes we would have to resort to procedures interfering with our own existence. Koch's conclusions from the new discoveries directed his attention to the malaria-patient; he saw that if every malaria-patient could be properly treated so that he could not be any longer the carrier of plasmodia, any number of anopheles might exist without any fresh infection occurring. He expressed this opinion years ago, but of course was ridiculed by mosquito enthusiasts.

Nothing daunted, he put his theory into practice in that little village in New Guinea, Stephansort, where by careful observation, general blood examination and thorough treatment of the infected persons, he succeeded within a year's time to reduce the formerly frightful morbidity of malaria to a few cases that could be proved to have been imported from the outside. This classic experiment has been the basis of the publications here discussed. Provided with means by the German government, he selected the localities named in the titles of the quoted papers (islands, villages, areas with steady and ambulant population, in tropical and subtropical countries, the number of individuals under control varying in the different places from a few hundred to thousands). Through local conditions and other circumstances it was possible to keep track of the population under observation, and even to enforce the blood examination and the treatment. All of the localities were feared as foci of malaria. Under Koch's directions the different expeditions were organized, the work beginning with a general blood examination, finding the plasmodia-carriers and submitting them to treatment. At all places this beginning was made in ample time before the malarial season of the locality, so that the cases apprehended were all of them remnants of the previous season, and thus (after Koch's theory) the greatest danger for the coming season. All newcomers were likewise examined, and, besides, if regular communication with other malaria-infected places obtained, the observation and control extended to these places. No attempts were made anywhere to exterminate mosquitoes. The result has been that everywhere the first season proved to be one of almost complete absence of fresh cases of malaria, while a few cases occurring during the second season (after which the investigation was closed) always could be shown to be of extraneous origin.

On a wide and imposing basis Koch has thus furnished the absolute proof for his contention that malaria can be easily exterminated by a thorough and adequate treatment of every infected individual.

It is not the place here to enter into a discussion of the many important and interesting details that these investigations have brought to light (the great malaria morbidity among children, the latent malaria infection without symptoms, the influence of physical conditions on the susceptibility, etc.); the reports are full of them, and form an inexhaustible source of knowledge and suggestions.

The question that most concerns us here is the practicability of the method if used on a larger scale. In the first place, it must be said that the experiments were made under very varying conditions, among people able to appreciate their meaning, and among others bare of any knowledge. In all cases the necessary control could be comparatively easily obtained, first by suggestion and persuasion, but very soon by the recognition that the welfare of the individual and the whole community was enhanced by it. Practically the most important point is

that all this was done with means that were very limited and did not amount to as much as would be necessary to sanitize a square mile of ground, for instance, around New York or in New Jersey. The method, too, needs not a complicated and specially skilled personnel, and a great number of the necessary manipulations (taking of blood specimens, administration of quinine, even examinations, etc.) can be performed perfectly satisfactorily by non-professional individuals. Koch's collaborators have utilized with advantage for this purpose nurses, schoolmasters, ministers, etc. If once the beneficial influence of such a plan is understood, it can be carried through with little expense.

The paper of Martini is interesting as showing that prophylactically, too, Koch's method is absolutely reliable and practicable. In former years at Wilhelmshafen all work which caused the breaking up and moving of much ground was followed repeatedly by an extensive outbreak of malaria. This was feared, too, when the great new constructions for the German naval force were undertaken, and so Martini was appointed to guard against an epidemic by means of Koch's method. The result has been that only a few imported cases of malaria were observed, and that the morbidity of malaria was lower than in former years.

Doenitz's paper on anopheles contains careful investigations on a great number of new species of this genus collected by Koch and others, the details of which cannot be shortly discussed.

The So-Called Cross-Striation of the Muscle-Fiber.—KARL MUENCH (*Archiv. fuer Mikrosk. Anatomie u. Entwicklungsgesch.*, Vol. 62, Heft 1).—Muench, after a method based on physical and mathematical principles, comes to the conclusion that the sacred conception of the metameric structure of the striated muscle-fibers is incorrect. The muscle-fiber is an indivisible unit, and the contractile element is neither the fibril nor the disc nor the sarcous element, but is given by the totality of which these parts form the building material. The contractile principle proper is an anisotropic disc-spiral that, held in position by twofold interanisotropic energies, winds its way through the fiber. The direct demonstration of this disc-spiral, as well as the mathematico-physical proofs for its existence, are very convincing, and are supplemented by excursions into pathologic conditions (fragmentation, splitting, etc., of the fibers). It is impossible to give in a few words the essence of the author's ideas, but the following words may be quoted which have reference to the mode of action of the contractile principle in the fiber: "If the fibril or the sarcous element would be the contractile principle, the complete and absolute unity (*Einheitlichkeit*) of the fiber would appear as an inconceivable accident without reason and purpose. But there is no accident in histology—as little as in astronomy." Whatever the final decision about Muench's reasoning may be, the paper shows how shallow is the basis for most of our explanations of microscopic pictures, and how easily they may be overthrown when we turn to the pictures with other than our always preconceived thoughts. As it is, the metameric conception of the structure of the muscle-fiber must be proved, if it is correct.

Remarks About the Pathology of the Appendix.—H. RIBBERT (*Deutsche Medicinisch Wochenschr.*, 1903, No. 23).—In a previous paper the author had demonstrated that obliteration of the appendix was observed in the majority of individuals coming to autopsy. He pointed out that the percentage of these cases increased with their advancing age. Since it is impossible to imagine that the appendix exists in the majority of human beings be at some time the seat of an acute inflammation leading to obstruction and obliteration, Ribbert connected this phenomenon with the rudimentary character of the organ. Further observation and study, however, convinced him that if such was the case we should rather expect to find a diminution in the size of the appendix than obliteration of its

lumen. Comparison with obstruction following acute inflammation showed that, histologically, in most cases it was identical with the obstruction he had found. Its causation, then, must be given by chronic irritative influences acting on the mucosa of the appendix, a position which, on account of the peculiar relations of the appendix, has been urged by other observers also. This irritation, of course, does not cause symptoms (only sometimes in so-called chronic appendicitis), but gradually brings about the same final result. Ribbert is inclined to believe that the resorption of bacterial toxins, for which the copious lymphatic tissue of the appendix would be accusable, might be at the bottom of the process, and not an active penetration of the bacteria into the mucosa, as in acute appendicitis.

The Relations Between the Occurrence of Glycogen in Leucocytes and Infection.—A. WOLFF (*Berl. Klin. Woch.*, 1903, Nos. 17 to 19).—Kaminer had asserted that constant relations existed between the appearance of glycogen in leucocytes and infection, which fact was taken as a very strong evidence for the correctness of Metschnikoff's phagocytic theory. A. Wolff, in very careful investigations, shows that a constancy of this relation does not exist, and that the glycogen-reaction of leucocytes is evidence of retrogressive changes in them. As such it is seen always in extravascular leucocytes (pus corpuscles, etc.), and under certain conditions can occur in the circulating blood. The influences leading to it can be of very different character (bacterial infection, intoxication, diabetes, etc.). There is no direct connection between leucocytosis and glycogen-reaction, as shown by the absence of the latter in the leucocytosis of anemia, of digestion and in leucemia. The disintegration of the glycogen containing leucocytes occurs in the spleen and in the bone marrow (rabbits).

The Agglutination of Staphylococci.—R. OTTO (*Centralbl. fuer Bacteriologie*, Vol. 34, No. 1).—Otto, working in Koch's laboratory, has compared the agglutination of different staphylococci by sera which were obtained by the immunization against the staphylococcus aureus, albus and citreus. While all of these forms were agglutinated by one and the same serum, agglutination never occurred in saprophytic staphylococci. The author concludes that among the many forms of cocci found, there is only one pathogenic for man. Under varying conditions this form can produce pigment of different color. By means of the agglutination, pathogenic and saprophytic cocci can be differentiated. The pathogenic cocci produce hemolysin, the saprophytic not.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

The Function of the Corpus Luteum.—L. FRAENKEL (*Archiv fuer Gynaekologie*, Vol. 68, 1903).—It is well known that the ovaries serve some other purpose besides discharging ova at more or less regular intervals. The distinct effect of extirpation of both ovaries upon the other genital organs and upon metabolism, the possibility of preventing these effects by transplanting ovarian tissue or feeding ovarian substance, have proven beyond doubt that the ovaries produce some substance that is of integral importance for a normal function of the genital apparatus in the female. During the last few years the internal secretion of the ovaries was the object of much speculation, just as was the function of all the other "ductless" glands.

This paper of Fraenkel—it should more properly be called a monograph—is a resume of a large series of experiments and observations made by the author, which tend to prove that the production of this potent secretion of the ovary is confined to the corpus luteum. In brief the results of his very painstaking investigations are the following: The corpus luteum is a gland, in the human female formed for a four weeks' function. Its main duty consists in stimulating the function of the uterus. It is an indispensable factor in the production of menstruation. If all the corpora lutea are extirpated the uterus becomes atrophic. For the process of nidation of the impregnated ovum in the uterine mucosa the presence of a corpus luteum is necessary. An extract produced from the corpora lutea of the cow immediately relieved the well-known symptoms of artificial menopause in several cases. The difference in the efficacy of the various ovarian preparations is easily explained by the fact that their therapeutical value is dependent upon the number of corpora lutea present in the ovaries used in the manufacture of these preparations.

The article abounds with a great number of interesting details as regards the histology and pathology of the corpus luteum, the connection between abnormalities of the latter and abnormalities in the situation and development of the impregnated ovum, that for obvious reasons cannot be mentioned here.

Shall Bossi's Method of Dilating the Cervix be Considered an Advancement in Obstetrical Therapeutics?—DUEHRSEN (*Archiv fuer Gynaekologie*, Vol. 68, 1903) answers this question in the negative. He makes the numerous reports of cases, in which Bossi's dilator has been employed, the object of a careful and critical consideration and concludes that the Bossi method affords neither a satisfactory nor a safe mode of rapid dilatation of the cervix. In cases in which an immediate emptying of the uterus is indicated, better results will be obtained with multiple incisions in the cervix, or the typical vaginal Cesarean section, as first advised by the writer and recently highly recommended by Bumm. (Confer abstract in this JOURNAL, February, 1903, page 114.)

On the Anatomy of the Pregnant Tube.—HENRY RUSSELL ANDREWS (*Jour. of Obstetr. and Gyn. of the Brit. Emp.*, May, 1903).—This article embodies our present knowledge of the anatomy of the pregnant tube (very clearly exposed in all details in the "*Referat*" recently prepared by Professor Hofmeier for the meeting of the Society of German Gynecologists.—ED.) There is no formation of decidua that could be compared with that occurring in the pregnant uterus. The impregnated ovum penetrates into the mucosa exactly as it does in the uterus, but develops in the tube outside of the tubal lumen within the muscular layers. The trophoblast enveloping the ovum possesses an eroding power. Invading the tubal muscle it impairs its integrity and brings about rupture of the pregnant tube. The trophoblast erodes the walls of blood vessels, thus producing hemorrhages which in their turn lead to tubal abortion.

A Contribution to the Question of True and Simulated Ectopic Pregnancy.—KARL KOBER (*Centralbl. fuer Gynaek.*, May 30, 1903).—In a paper published in *Zeitschrift fuer Geburtsh. und Gyn.* (Vol. 48, 1903), Schambacher propagates the idea that retrouterine hematocele might often be due to some other cause than ectopic pregnancy. Kober opposes this view and proves on the histological picture of a tube which, undoubtedly, had been the seat of an ectopic pregnancy that sometimes only in a very limited area the characteristic changes of pregnancy may remain undisturbed. He very justly concludes that only a careful examination of the entire tube in uninterrupted serial sections will permit of excluding the probability of pregnancy and that at present the view first pronounced by Veit and Fritsch still obtains, namely, that almost every retrouterine hematocele is due to an ectopic pregnancy.

Death From a Single Vaginal Douche.—G. DE N. HOUGH (*Boston Med. and Surg. Jour.*, April 9, 1903).—The writer describes two cases in which a single vaginal douche led to a fatal result. The first case concerns a woman, who had miscarried in about the fourth month of pregnancy. The following morning a douche was given of one quart of a 1 to 1000 solution of corrosive sublimate. In forty-eight hours the typical symptoms of a bichloride intoxication developed and patient died of exhaustion fifteen days after receiving the douche. In the second case a douche of a 1 to about 1000 solution of formalin was given four days after vaginal hysterectomy had been performed for sarcoma of the uterus. This douche caused the patient severe pain, soon afterwards she passed into a condition of collapse and died within a few hours. The writer believes that a part of the injected fluid penetrated to the peritoneal cavity, and produced a severe shock to which the weakened patient succumbed.

(The first case is of considerable practical importance. Repeated warning has been sounded against the use of bichloride douches in obstetrical work, but it seems the danger of such a practice is not yet generally recognized.—ED.)

Diffuse Septic Peritonitis After Curettage of a Fibromatous Uterus.—H. J. BOLDT (*Americ. Jour. of Obstetr.*, March, 1903) reported the following instructive case to the New York Obstetrical Society: The patient had been advised to have a fibroma of the uterus removed, but refused operation. Her family physician then curetted her, maintaining that no force had been exerted by him with the instrument. Two days later she began to have intense pain in the abdomen, high temperature and chills. When seen by the essayist on the fourth day the physician stated that he felt the curette disappear three times and that he thought he had entered the Fallopian tube with the instrument. The writer made a diagnosis of perforation of the uterus. Patient was brought to a hospital. On opening the abdomen the stench was so intense that it forced the operator to turn aside momentarily. It was found that the uterus was ruptured by the fibroid which partly extruded into the abdominal cavity. The tumor was gangrenous. On opening the uterus it was seen that the tumor had three perforations in it. Uterus with neoplasm and adnexa was extirpated. Patient died of sepsis.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

Prolonged Withdrawal of Food in Certain Cases of Intestinal Disorders in Children.—PARKE (*Jour. Amer. Med. Ass'n*, June 20, 1903) calls attention to the fact that infants can safely be deprived of all food except water for much longer periods of time than have been advised in the text-books, and insists upon the value of this procedure in the management of severe cases of intestinal disorder. It is a well-known dictum of treatment in cases of ileo-colitis of infancy, that all foods should be withdrawn for twenty-four to forty-eight hours. The author reports two cases—one a child of fifteen months, and the other an infant of ten months—where, after forty-eight hours of withdrawal of food, the symptoms did not improve. Fever and bloody stools continued. He thereupon made the experiment of continued starvation, and in the first case starved the child for five days; in the second for eight days, water *ad libitum* being allowed. Both of these children recovered, and in neither case was the emaciation at all excessive. While the author does not recommend indiscriminate starvation, he believes that these cases should be put on record as showing that children with

severe intestinal disturbances will at times recover more quickly on water alone than they will on food of any description that a disturbed intestinal tract cannot assimilate.

"Sea-air" Cure of Tubercular Peritonitis.—**LEROUX** (*Arch. de Med. des Enf.*, June, 1903) reports the case of a girl of eleven years, suffering with the fibro-caseous form of tubercular peritonitis with the addition of tubercular pleurisy. When first seen the condition of the patient was exceedingly bad. Great emaciation, pain, hectic fever, constant vomiting, intolerance for food, and constipation. Examination revealed the so-called abdominal tumors that mark the severe cases of this affection. It is to be noted that there was no ascites.

Treatment consisted in application of moist compresses (98° F.), deep injections of guaiacol in oil, gradually increasing amounts of raw meat and raw eggs. Patient was kept at absolute rest, but within six weeks was removed to the sea-shore. The patient lay at rest in the open air all day, and received a warm salt bath daily. This treatment was continued for fourteen months, the patient alternating between two sea-shore resorts. At the end of this time there had been a gain in weight of thirty pounds, all local signs had disappeared, the general condition excellent, appetite very good, and the patient absolutely well.

[In view of the present widespread interest in the treatment of tubercular peritonitis, this case is of special interest. It is noteworthy that an extremely severe case of tubercular peritonitis (fibro-caseous form) recovered under medical and hygienic treatment without laparotomy within fifteen months.—ED.]

Paroxysms of Whooping-Cough Treated by Pulling the Lower Jaw Downwards and Forwards.—**SOBEL** (*Archives of Pediatrics*, June 11, 1903) reports his results with this method of treatment, first advised by Naegeli.

During the paroxysm the operator, standing in front of the patient, places the flexed index and middle fingers against the angle of the lower jaw, both thumbs along the nose and against the upper jaw, and then pulls downwards and forwards.

If behind the patient, the operator places the flexed index and middle fingers against the angle of the jaw, the thumbs along the body, the remaining fingers beneath it, and then pulls downwards and forwards.

This method of treatment, by overcoming the glottis spasm, the main element in the paroxysm, shortens the paroxysm, and thus unquestionably makes the course of the disease milder.

Inasmuch as the maneuver can easily be taught to mothers, nurses or other attendants, its value in the treatment of pertussis becomes very great.

In ninety-six cases thus treated by the author, there was failure to shorten the paroxysm in only nine cases (9.3 per cent.).

The procedure appears to be more efficacious in older than in very young children.

While it is not claimed that this treatment should exclude other treatment, the author thinks that, in view of its absolute harmlessness and of its beneficent effects in most cases, it should form an integral part of the treatment in every case.

A New Treatment of Whooping-Cough.—**KILMER** (*N. Y. Med. Jour.*, June 20, 1903) advises the alternate use of antipyrine and bromide mixture and quinine. A child of two years receives sodium brom., three grains; antipyrine, one grain; syrup of ipecac, four minims, every two hours for three days; then three grains of sulphate of quinine for three days; then goes back to the first mixture again, and so on.

The new part of the treatment consists in the mechanical compression of thorax and abdomen. A stockinette band is fitted snugly over the baby, extending from axillæ to pubes, and supported by shoulder-straps. Over this a

single width of broad elastic bandage is stretched entirely around the body and sewn in place. If the vomiting be excessive this band is fitted over the abdomen; if, on the other hand, the paroxysms are especially severe, it is fitted over the thorax. In severe cases two bands may be applied. The author has had excellent results from the treatment, its only disadvantage being the occasional production of a slight eczema, which promptly disappears on removal of the bands.

Treatment of Tuberculosis in Childhood by Muscle Juice and Raw Meat.—JOSIAS and ROUX (*Gaz. des Hop.*, May 26, 1903) report their results with this method of treatment. They believe that the treatment (used in conjunction with the hygienic measures now generally recognized as essential) offers the best outlook for tubercular cases.

No appreciable effect followed the treatment in cases of tubercular meningitis or phthisis florida.

Of eight cases of tubercular peritonitis treated, four were cured.

Diagnosis is confirmed by injection of tuberculin.

Of thirty-two cases of pulmonary tuberculosis, in all stages, twelve were cured, six benefited, one remained stationary, and fourteen died. If the cases seen in the third stage be omitted, there were sixteen cases, fourteen of which showed improvement under the treatment.

Rapid increase of weight after institution of the treatment has been shown to be a prognostic point of importance. Naturally, the incipient cases offer the best outlook.

[The amounts ordinarily given to children are 150 gm. of muscle juice and 100 gm. of raw meat daily.—ED.]

Management of Catarrhal Pneumonia in Infants.—KEREY (*Jour. Amer. Med. Ass'n*, June 20, 1903) insists upon the importance of making the child comfortable, which means increasing his powers of resistance. Fresh air must be had constantly, and the room must not be heated above 70° F.; not too much clothing should be worn, and the author objects to the use of the oiled silk jacket because it is cumbersome, uncleanly, and because it overheats the patient.

Breast-fed babies must have their time of nursing reduced one-third to one-half, the intervals remaining the same. In the bottle-fed babies the milk strength must be diluted one-third to one-half because of the reduced digestion capacity. Children from two to four years are given milk, gruels and broths. The bowels should be kept open.

Every effort should be made to allow the child to rest as much as possible, "to save every unit of the child's vitality."

The author thinks well of steam inhalation with creosote (ten drops to the quart). Inhalations should be given for thirty minutes every three hours.

Counter-irritation with old-fashioned mustard plaster (one part mustard, two parts flour) is often of value, especially if used early. Sometimes the hot mustard bath (one tablespoonful of mustard to six gallons of water, at 100° F.) answers very well to relieve intense pulmonary congestion.

Internal drug treatment is largely symptomatic. The author does not believe in the routine use of the ammonia salts, especially as they are usually given, in syrup. He prefers tartar emetic and ipecac, with small doses of Dover's powder, if necessary.

For antipyresis the author prefers sponge baths or packs. In both cases the water should be warm; at first 95° F., reduced gradually to 70°. For continuous high temperature the author prefers the continuous cold pack. Where hydrotherapy does not reduce the fever, or where it cannot be successfully carried out, a combination of caffeine, phenacetin and Dover's powder is used as an antipyretic.

Heart stimulants should be used when the pulse is very rapid or very soft and irregular. The author prefers the tincture of strophanthus. Small doses of strychnia may at times be added to advantage. Alcohol is not of much value except late in the disease, when other means fail. The author finds oxygen of decided value in many cases.

ORTHOPEDICS.

IN CHARGE OF

MALVERN B. CLOPTON, M. D.

Rational or Combined Treatment of Coxalgia.—R. FENSTAL TAYLOR (*Trans. of Am. Orth. Ass.*, Vol. 45, 1902).—Great reliance is placed upon x-ray negatives of hip disease, which the author claims are much more reliable than tuberculin for diagnostic purposes. When the focus of disease is small and well away from the joint, or when the case is far advanced and accompanied by sinuses and involvement of the whole neck, no operation is advised. But when the focus is easily distinguishable and there is moderate bone involvement, he practices erosion with the curette, thus not destroying any healthy bone and leaving the joint in the best condition for repair. Formalin in 2.5 per cent. solution is used as a disinfectant for five minutes. The wound is closed except for small gauze drain, and after six weeks of traction with recumbency, the child is allowed about with brace crutches and high shoe, wearing these for six months or a year. The author records a case of sudden death immediately after the Sayre carbolic-alcohol disinfection, which he ascribes to carbolic poisoning.

A New Method of Treatment for Fractures of the Neck of the Femur.—ROYAL WHITMAN (*Trans. of Am. Orth. Ass.*, Vol. 45, p. 338).—Fracture of the neck of the femur in childhood is not uncommon, but the rapid recovery from the injury indicates that in most instances the neck is forcibly depressed without complete separation, and that the average result, in spite of non-treatment, is far better than ordinarily obtained in adult life. In nineteen cases in children there was union, with average shortening of three-quarters of an inch. This result is far from satisfactory, as a depression of the neck, whether traumatic or otherwise, sufficient to cause even a half inch of shortening, predisposes to gradual increase of disability similar to coxa vara of the ordinary type. For this reason it is advised to break up the impaction and reduce the deformity. This is done by forcibly abducting the limbs. The upper rim of the acetabulum is used as a fulcrum, the femur as a lever, and the lower capsular ligament is relied upon to fix the head. This operation has been twice satisfactorily performed, the limb after reduction being held in extreme abduction by plaster spica. The author further suggests that this position be used in adults as well as the initial treatment of neck fractures, whether impacted or not, as it gives the only fixation which has an anterior and posterior as well as a lateral support, and it adjusts the fragments most perfectly.

The Diagnostic Value of Tuberculin in Orthopedic Surgery.—W. S. BAER and H. W. KENNARD.—Forty cases are used to base their observations upon, in private practice and in the outpatient orthopedic dispensary of the Johns Hopkins Hospital. Twenty-five gave a positive reaction and fifteen were negative, the diagnoses then obtained being verified subsequently either by observation or operation. Tuberculin is regarded by them as the best and most reliable diagnostic agent for incipient tuberculosis of bones and joints, and its proper admin-

istration is attended by no permanent harmful effects. The dosage is variable, beginning with .5 mgm., followed in two-day intervals by 2. or 4. mgm., when necessary, rarely exceeding 6. mgm. The local signs are of equal, if not greater, importance than the general reaction in bone and joint tuberculosis. Other diseases may react to tuberculin, but the evidence is not conclusive, while tuberculosis practically always reacts. The diagnosis of tuberculosis can be made earlier and with more certainty by tuberculin than by radiography, particularly in young children whose bones are not sufficiently ossified.

Two Cases of Polyarthrititis in Children.—STILL. Remarks on Rheumatoid Arthritis.—ROYAL WHITMAN (*Medical Record*, Vol. 63, No. 16).—Still, of London, describes a chronic joint disease observed in children, generally insidious, progressive and associated with enlargement of lymph nodes and spleen. The joints most involved were knees, wrist and spine, the smaller joints of hands—feet not being affected. Early wasting of muscles, anemia, waxy pallor, with the joint symptoms, however, were the most prominent. One case of Whitman's had all the larger joints involved, only the sterno-clavicular, fingers and toes, lower jaw and spine being free from disease, the illness coming on with the involvement of the knee, which looked clinically tubercular, but which was not, and gradually all the other joints became diseased, the course of the malady lasting over several years, finally resulting in death. Both knees were operated upon with some relief, as was one wrist, the joint being filled with a granulation tissue of low grade with some erosion of joint surfaces, but no disease of the bones. The joints were painful on motion and accompanied by contractures. The skin was so fragile late in the disease that sutures would not hold and was covered by a scaly eruption of a most obscure nature. The autopsy showed a liver three times normal size with amyloid degeneration, spleen correspondingly large and soft, kidney large, with parenchymatous nephritis; mesenteric and other lymph glands enlarged with amyloid degeneration, while thoracic organs were practically normal. The spongy portion of the long bones was uniformly dark red in color, the structure, however, firm and regular. The second case was similar in all respects, as regards the joint involvement, emaciation, abdominal enlargement, but after eighteen months he began to improve; at the time he was under daily exposure of the naked body to numerous electric lights in a hood, but his cure was apparently completed by an attack of scarlatina, and one year later he was fat, strong and active, with no trace of the disease. The disease bears a resemblance to Schueller's polyarthrititis chronica vellosa and to atrophic arthrititis deformans (rheumatoid arthritis of Goldthwait). It differs from rheumatoid arthritis in that the effusion is much greater, and the freedom of involvement of the finger joints. The disease in the beginning simulates tubercular disease so closely that, until its extension to other joints, it is impossible to determine its true character.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

A Contribution to the Spinal Root Localization of the Knee Jerk, Achilles Jerk and Plantar Reflex.—BRAMWELL (*Rev. of Neurolog. and Psychiatrie*, June, 1903).—The results of this study were based upon a case of very early tabes and affords definite evidence regarding the spinal root localization of the knee and Achilles jerk. Both Achilles jerks and the left knee jerk were absent, the right knee jerk being active. The plantar reflexes were present. The patient's death was

caused by pressure due to a large new growth involving the root of the left lung. The spinal cord, below the level of the third cervical, was carefully examined microscopically. The following are the conclusions: (1) Loss of the Achilles jerk may result from a lesion limited to the fifth lumbar and the first sacral posterior root. (2) Loss of the knee jerk may result from a lesion confined to the fourth and third lumbar posterior roots. (3) The afferent path of the reflex or for the plantar reflex in all probability enters the cord by a posterior root or roots, situated below the level of the first sacral.

On Neurofibromatosis.—FRAENKEL and HUNT (*Med. Record*, June 13, 1903).—Neurofibromatosis is the formation of one or more tumors in one or more cerebrospinal or sympathetic nerves. It was formerly regarded as a rare affection, and when Virchow, in 1863, called attention to it, there were only thirty cases in the literature. The tumefactions are of various sizes, from a bead to a child's head, and they vary in number from a single one to a thousand. They are met with on all nerves except the optic and olfactory. They usually arise from the endoneurium. Histologically they are made up of connective tissue elements. Three cases, one with autopsy and microscopical examination, form the basis of this paper.

CASE 1.—Compression myelitis produced by intravertebral fibroma. The most prominent symptoms were extensive motor paralysis of the upper and lower extremities, muscular twitchings and cramps, with some difficulty of respiration. In the right lower abdomen, felt under the skin, was a large boggy mass. The autopsy showed numerous tumefactions in the lumbar and cervical plexus and thickenings of various other nerves.

CASE 2.—Isolated neuromata of the posterior tibial and communicans peronei nerves.

CASE 3.—Fibroma of the peripheral nerves; no other symptoms. In conclusion the authors set forth the following points: (1) The possible diagnostic aid to be derived from the presence of skin fibromata or naevi in obscure lesions of the nervous system. (2) The chorea-form muscular twitchings observed in the first case. (3) The absence of characteristic root pain in a case of extramedullary compression of the cord. (4) The fact that neurofibromatosis is occasionally the cause of increased intravertebral or intracranial pressure. (5) The presence of neurofibromata without giving rise to neural symptoms. (6) The indications for surgical interference are given not only by direct neural symptoms, but by consideration of the fact that sometimes, although rarely, neurofibroma may assume a malignant character and undergo sarcomatous transformation. (7) That the absence of neural symptoms may be explained partly by the presence of an interfibrillary cedema and succulent myxomatous tissue within the hyperplastic fibrous tissue, thus diminishing and disturbing the pressure, and partly by the absence of a tendency for this fibromatous tissue to contract in contradistinction to inflammatory hyperplasia.

A Clinical Report of Nine Cases of Friedreich's Disease: Hereditary or Family Ataxia, So-Called, With Comments on Noteworthy Symptoms.—JOSEPH COLLINS, M. D. (*Am. Medicine*, May 30, 1903).—The disease now commonly known as Friedreich's Disease or Hereditary Ataxia, has a history that dates back more than forty years. In 1861 Friedreich presented a report of three cases of locomotor ataxia, which showed some remarkable features, particularly in regard to the time of the development of the disease and its occurrence in more than one member of the family. The most striking features of Friedreich's disease are first, its occurrence in more than one member of the family; secondly, its development in early life, usually about the time of puberty. The distinguishing clinical features of the disease are: (1) Ataxia of all purposeful movements and of station, inco-ordination due to the loss of the sense of equilibrium; (2) loss of

the tendon jerk, diminished myopathic irritability and muscular weakness, which may amount to paresis of the lower extremities; (3) deformities of the spine, usually scoliosis, lateral curvature and deformity of the feet, commonly pes cavus, with extension of the big toe; (4) nystagmus, static and dynamic; (5) disturbance of articulation and intonation; (6) features that distinguish it from tabes or locomotor ataxia, absence of lancinating pains, intactness of sensibility, normal pupillary reactions, no disturbance of vision and noninvolvement of the urogenital sphere. The author gives the histories of seven cases, with comments upon some of the unusual symptoms present. It is sometimes difficult to differentiate an atypical case from Huntington's chorea, multiple sclerosis or sclerotic disease of the brain, but on the whole the cases are of uniform character. Some of the uncommon clinical features are preservation of the tendon jerks, *pas planus*, *manus cavus*, and an uncommon complication is the Menier symptom-complex.

Hyperesthesia Unguium (Onychalgia Nervosa).—OPPENHEIM (*Monatsch. fuer Psychiatrie u. Neurol.*, No. 4, 1903).—Oppenheim calls attention to a hitherto unnoticed condition of the nails, the chief symptom of which is a remarkable sensitiveness of the nails themselves and the nail bed. He gives the history of three cases, in two of which the condition has existed from early childhood. No mention of this form of hyperesthesia is to be found in text-books on dermatology or in the special monographs on diseases of the nails. In all of the cases the patients were made aware of the condition in trimming the nails.

Active Syphilitic Manifestations in Tabes and in Dementia Paralytica.—GAUCHER (*Gaz. des Hospit.*, No. 59, 1903).—One of the objections which has always been advanced against the syphilitic or parasyphilitic origin of tabes and of dementia paralytica is the infrequency of active specific skin lesions in these two diseases. While the co-existence of the usual syphilitic lesions in tabes or dementia paralytica in the same individual would not necessarily prove a direct connection in them, yet their occurrence in a number of well-authenticated cases would necessarily be strong evidence in favor of this view. Gaucher describes two cases of this sort. In one case the symptoms of tabes followed a syphilitic infection of five years' duration. A late specific circinate erythema of the left knee was present. The second case presents a history of syphilis of ten years' duration. At the present time there are typical symptoms of dementia paralytica present together with a specific psoriasis of the left hand. The author believes that such coincidences are by no means as rare in the two parasyphilitic diseases of the nervous system here under consideration as has been heretofore supposed.

On the Presence of Albumins Coagulable by Heat in the Cerebro-Spinal Fluid of Dementia Paralytics.—GUILLIAN and PARANT (*Rev. Neurolog.*, April 30, 1903).—In a communication presented to the Society of Neurology of Paris, the authors call attention to the presence of certain coagulable albumins in the cerebro-spinal fluid of general paralytics. In a fluid drawn by spinal puncture from a normal individual there is always a certain amount of clouding by the heat test for albumin. If this globulin is precipitated by a saturated solution of magnesium sulphate and filtered, the remaining fluid will not cloud on boiling. If this same procedure is followed in a specimen of fluid drawn by spinal puncture from a case of dementia paralytica, a definite precipitate will occur in the fluid that is left after the precipitate has been filtered off. This is the reaction for which this study was undertaken. The cerebro-spinal fluid of thirty-six cases, sixteen of which were general paralytics, was examined. In all of the sixteen cases, this reaction was found and in none of the others was it present. The remaining twenty cases included various sorts of functional nervous diseases. The authors believe that this test may be of considerable diagnostic importance.

GENITO-URINARY SURGERY

IN CHARGE OF

H. McC. JOHNSON, M. D.

Treatment of Stricture of the Urethra by Massage.—BARTINA (*Ann. des Mal. des Org. Genito-Urin.*, May 15, 1903).—The author mentions the good effects Motz has obtained from massage in a large group of chronic urethritis, and discusses the pathology of chronic inflammation of the urethra, the effect of external massage upon them, and shows even in strictures, where there is a large deposit of cicatricial tissue, there is present, nevertheless, much round-celled infiltration, even deep in the tissues, which it requires external massage to alleviate. Numerous cases are reported in which this procedure has given satisfactory help. And this would seem to be a reasonable deduction, since the action of a sound passed through a stricture determines a kind of internal massage.

The author concludes by recommending external massage as a means of treatment of the chronic urethritis, which so often complicates stricture of the urethra; as a preventative means to avoid the organization of the infiltration into sclerosed tissue, and as a means of modifying the stricture itself.

Aids to Cystoscopic Practice.—VALENTINE (*N. Y. Med. J.*, June 6, 1903).—The author has had constructed a cystoscopic box phantom and a large cystoscope phantom, so that the student may familiarize himself with the cystoscopic picture and become proficient in its various manipulations before attempting the use of the instrument in the living.

Concerning Primitive and Limited Cancer of the Prostate and Its Treatment by Total Perineal Prostatectomy.—ORAISON (*Ann. des Mal. des Org. Genito-Urin.*, May 1, 1903).—The recent method of operating by total perineal prostatectomy, according to the procedure of Proust and Albarran, revives anew the question of surgical treatment of primitive and limited cancer of the prostate. His late experience in two cases of prostatic cancer has enabled the author to observe the good immediate effects of the intervention and its harmlessness, and has impelled him to make a general study upon this subject. He gives a resume of the previous attempts to relieve this condition and quotes the published cases from literature, which heretofore have been discouraging. He discusses the varieties of prostatic cancer and the methods of operation of different authors. That of Proust, which is an extra-capsular extirpation, is admirable, but that of Albarran, which is a sub-capsular enucleation, is preferable. It is by the latter method that the two cases reported were operated upon.

Cancer of the prostate is much less rare than has been thought, especially in the circumscribed form. It is here that a radical intervention is perfectly justifiable. While, unfortunately, in the present state of our knowledge we do not possess a clinical picture sufficient to be able to diagnose cancer of the prostate in the beginning, so that we might determine definitely when and where to operate, yet we should attack those cases of hypertrophy which are doubtful and which give symptoms sufficiently painful to warrant intervention; and even in more advanced cases to, afford relief, we might do an enucleation, provided the disease has not passed the limit of the gland, for when this has happened it were better let alone.

Cryoscopy as an Index of Renal Insufficiency in Surgical Diseases of the Kidney.—FINKER (*Johns Hop. Hosp. Bul.*, June, 1903).—After giving the evolution of cryoscopy, and quoting the experiences and opinions as to its value of those who have written upon the subject, the author says that cryoscopy does not seem

to have come into very general use in this country. Under normal conditions the freezing point of urine varies between -0.9° and -2.0° . A freezing point above -0.9° is generally taken as indication of renal insufficiency. Physiological variations in the freezing point of normal human blood are far less than those of the urine. Normal blood has a freezing point of -0.56° below that of distilled water, with the physiological variation of from -0.55° to -0.57° . An increase of the freezing point to over -0.58° shows that renal insufficiency is present. The very slight variation in the freezing point of normal blood makes cryoscopy of the blood a considerably more valuable test than that of the urine alone.

Cryoscopy of the blood of twenty-five patients whose kidneys were normal, gave surprisingly uniform results. In those cases in which there was a pathological state of the kidney, cryoscopy of the blood gave a good estimate of its functional capacity, and cryoscopy of the separate urines from each kidney gave valuable information as to their respective conditions. The author gives in detail the methods of doing cryoscopy and of obtaining the blood for it, and says that this method of examination is simple and readily made, even by those of little experience in its use; that it is not more time-consuming than very many other methods of clinical examinations in general use; that the results of this method of examination have been determined by a large number of observers to be more reliable and accurate than those of the tests now in general use; that while this method has a limited field of usefulness, it is of decided value in cases in which its use is indicated.

Renal Decapsulation for Puerperal Eclampsia.—EDEBOHLS (*N. Y. Med. J.*, June 6, 1903).—As a natural consequence of the encouraging results obtained from renal decapsulation in other diseased conditions of the kidneys, the author has extended its use to puerperal eclampsia of renal origin.

He reports a case in which the following is an epitome:

Primipara; age, twenty-three; typhoid fever during the fourth month of pregnancy; symptoms of nephritis during the seventh month; uremia and eclamptic seizures near the end of the eighth month; five severe convulsions within sixteen hours, followed by forced delivery during the fifth convulsion; freedom from convulsions for forty-six hours after delivery; then return of convulsions; six severe convulsions not counting minor manifestations occurring in eighteen hours; decapsulation of both kidneys; no further convulsions and rapid restoration of complete health.

As the efficacy of phlebotomy in controlling uremic seizures is acknowledged, why should not the abstraction of blood directly from the kidneys, which necessarily accompanies renal decapsulation, prove still more efficacious? The author believes that in renal decapsulation we possess an additional potent resource in the treatment of puerperal eclampsia of renal origin, and suggests the extension of its use to puerperal convulsions of nephritic origin, occurring prior to the beginning of labor, which might possibly avert the necessity of inducing it.

Contribution to the Subject of Perineal Prostatectomy.—WAINWRIGHT (*Ann. Surg.*, May, 1903).—A prevesical incision to the bladder, without opening it, gives great help in doing perineal prostatectomy. In a case reported, while bluntly separating the tissues of the perineum to the prostate, the rectum was torn. The tear healed nicely under a simple purse-string suture. Failure to find an unsuspected stone at the time of operation emphasizes the importance of opening and thoroughly exploring the bladder while doing a prostatectomy.

A Contribution to the Pathology and Prognosis of the Diseases of the Bladder.—GREENE and BROOKS (*Med. News*, June 20, 1903).—After quoting the excellent pathological work which has been recently done on the bladder by Halle and Motz, and that of Ciencanowski, the authors proceed to give their own necrop-

sical observations. Out of five hundred consecutive autopsies, one hundred and seven showed marked bladder lesions. This number, while surprisingly large, by no means includes all cases exhibiting bladder disease, for all minor lesions are excluded from the list. From these examinations, as a preliminary report, they find that the most frequent cause of diseases of the bladder are lesions of the central nervous system, causing dilatation, septic processes of various varieties, and hypertrophy of the prostate. In all conditions in which the spinal cord or central nervous system is involved, frequent and early catheterization should be resorted to, to prevent the bad effects of overdistention, or the possibility of cystic rupture. Conditions of the bladder must greatly modify the prognosis in operative procedures for the relief of obstructions of the urinary flow, therefore the importance of cystoscopic and other examinations cannot be too strongly insisted upon. Hypertrophy of the bladder wall is due to four different processes, separate or combined:

- (a) Inflammatory infiltration.
- (b) Increase of the fibrous connected tissue.
- (c) Smooth muscle hyperplasia.
- (d) Infiltration by new growth.
- (e) The clinical symptoms in hypertrophy of the bladder depend on which of these factors predominate.

Results of Decapsulation of the Kidneys.—JOHNSON (*Ann. Surg.*, April, 1903).—From experiments on dogs the author finds that the kidney capsule consists of two layers, that the outer one only is removed in the operation of decapsulation, and that ultimately a fibrous investment forms about the organ after this operation.

In no case was there any considerable anastomosis between the renal and perirenal blood channels.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Modern Conception of Eczema.—J. A. FORDYCE, M. D. (*Jour. Amer. Med. Ass.*, June 13, 1903).—Dr. Fordyce chose this very important subject for his address as chairman before the section on cutaneous medicine at the last session of the American Medical Association. His remarks are based upon the most modern ideas of the cause of eczema, and after discussing these, he says: "Admitting, as we must, that the real cause in most of such inflammations is a local one, we should not overlook the importance of general conditions as contributing influences. But we must not attribute to them the sole cause of certain conditions, for we might with as good reason attribute erysipelas, furunculosis or other known local infections to nephritis or glycosuria, as to say that eczema is only due to such general causes as imperfect metabolism, gout or other morbid states." In other words, if we claim for eczema a cause that must have its seat in the skin, the tissues are prepared for its action by a lowering of their resistant power. There is little doubt, in the light of modern research, that many types of catarrhal inflammation of the skin which were formerly called idiopathic eczemas, are in reality due to the local action of the streptococcus and staphylococcus, either alone or in combination.

Notes on the Treatment of Lichen Planus.—JOSEPH ZEISLER, M. D. (*Jour. Amer. Med. Ass.*, June 13, 1903).—The writer's attitude at the present time in

the treatment of lichen planus is to resort to arsenic as the remedy of choice in the more generalized eruptions; while in the more localized or milder forms he would rather employ milder treatment. He prefers the internal administration of the drug, and uses either the Asiatic pill or Fowler's solution. With the latter preparation he begins with two drops, three times a day, and increases each dose daily by one-fourth a drop up to the point of tolerance, but rarely exceeds fifteen drops three times a day. Chiefly induced by the advice of Brocq and Jacquet, he has for the past eight years given a prominent part in the management of these cases to hydrotherapy. The patients are instructed to take, preferably during the forenoon, a tepid bath, in which they remain quietly for ten or fifteen minutes, when, by means of a hose attached to the mixer, they irrigate the region of the spinal column, beginning at the nape of the neck, with first luke-warm water and gradually quite cold water, winding up with a general sponging, and finally a half hour's rest in their bath robe. Alkalies, tonics and such remedies when indicated are used.

As to local treatment, Unna's well-known salve is used: carbolic acid, 4 per cent., and 0.02 per cent. of mercuric bichloride.

A Case of "Granulosis Rubra Nasi" (Jadassohn).—J. M. H. MACLEOD, M. D. (*British Jour. of Derm.*, June, 1903).—This disease, first described and named by Jadassohn, consists of a red, hyperemic patch on the tip to the bridge of the nose, and usually extends laterally to the middle of the *alæ nasi*. In Doctor Macleod's case the patch was symmetrical and faded gradually into the normal skin. Over the whole area there were numerous beads of perspiration, which gave the patch a dampened, glistening appearance. The sweat in this location gave an alkaline reaction. Over the patch were a large number of discrete macules and micro-papules, of a brownish-red tinge, rounded or acuminate in shape, and varied in size from a pin's point to a pin's head. The presence of the papules gave the patch a granular feel, hence its name. There was no infiltration. The disease is most frequent in children and may begin in infancy. It is very chronic and is associated with other vaso-motor disturbances, poor circulation, cold, clammy hands, etc. Doctor Macleod's case is in all respects typical of the disease as described by Luithlen and Jadassohn. Upon microscopical examination he found the leading changes in the corium, a dense infiltration about the capillaries, the lumen of the sweat glands were dilated and increase of cells about them. The treatment so far has not been successful. The condition seems to be an anomaly of the sweat center or a disturbance of the nerves governing the sweating of that region. The constant flow of sweat causes the hyperemia or the alkaline reaction allows the propagation of organisms which produce the mild inflammation.

Nodular Syphilides (Erythema Nodosum Syphiliticum) and Syphilitic Phlebitis.—MAX MARCUSE (*Archiv f. Dermatologie u. Syphilis*, 1902, t. lxiii, p. 3; *Annales de Derm. et de Syph.*, May, 1903).—This rare affection, often relatively grave, occupies those regions which are preferred by erythema nodosum. These lesions are generally considered as a specific exanthema; they may occur with secondary or may occupy an intermediary position. They are resorbed under the influence of specific treatment or may ulcerate. The lesion is in the subcutaneous veins and is analogous to that described by Philippson in his studies of a similar condition, but tuberculous, a phlebitis proliferans et obliterans of syphilitic origin, and, therefore, not of a classic gummatous nature. Granulation tissue of the usual type is formed with often subsequent necrobiosis.

LARYNGOLOGY AND OTOTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

On Endoscopy of the Nose and Its Accessory Cavities. A New Method of Examination.—HIRSCHMANN (*Archiv fuer Laryngologie und Rhinologie*, Band 14, Heft 2).—For the past two years the author has been experimenting with Nitze cystoscope in making examinations of the nose and its accessory cavities. He found that in order to receive satisfactory results, the diameter of the shaft of the cystoscope had to be reduced to 4 mm. With an instrument of this size the writer is able to explore the entire surface of the lining membrane of the antrum of Highmore. Six colored plates are given, five of which illustrate pathological changes within the antrum, and one showing pus escaping from an ethmoidal cell.

Remarks on the Laterally Situated Adenoid Vegetations in the Nasopharynx with a Description of a New Instrument for Their Removal.—MOLLER (*Archiv fuer Ohrenheilkunde*, Band 57, Heft 3 und 4).—The author takes up the question as to whether adenoid vegetations are ever found in the fossa of Rosenmueller and on the lateral pharyngeal wall. He states that they not only occur in these regions, but sometimes extend downward on the salpingo-pharyngeal folds, that they may be seen by direct inspection. A report of nine cases is given in which these lateral growths were removed by means of Professor Mygind's specially constructed adenotome. In three of the cases the growths were examined histologically and were found to be identical with the ordinary adenoid vegetations. The writer wishes to call attention to the fact that these lateral adenoids are seen at a later period than the ordinary ones and do not show any great tendency to atrophy. The diagnosis of these growths is not always easy and can often be made only after the pharyngeal tonsil has been removed, and then only by means of careful digital and post-rhinoscopic examinations. He also states that these are the cases in which the symptoms remain unchanged after the removal of large masses of adenoids by the ordinary instruments, the lateral masses being the real cause of the symptoms. The removal of these growths can be easily accomplished by means of Professor Mygind's modification of Beckmann's adenotome.

Superheated Medicated Air in Diseases of the Ear and Nose.—BECK (*Laryngoscope*, May, 1903) gives the result of one year's experience with superheated medicated air in the treatment of certain affections of the ear and nose. He brings in an adverse report of its use in chronic catarrhal conditions of the middle ear, but considers it a great adjuvant to other accepted methods of treatment in chronic suppurative conditions. He has improved the method by which air can be applied and combined with medicinal substances, and has devised a very ingenious little air heater which produces a very hot current of air in two minutes, the temperature being regulated by a switch and the pressure by a cut-off. Among fifteen different volatile substances he found three, formalin, menthol and chloroform to have given the best results.

For the application of this method of treatment the author selected a number of affections of the ear and nose. Fourteen cases of chronic catarrhal otitis media from one to ten years' standing, all of which had been treated by the usual methods for from six weeks to six months without any improvement. The effect of the hot air treatment was that the hearing was not improved in any, the tinnitus was relieved in the majority, but made worse in three. Fourteen cases of chronic suppurative otitis media, all of more than a year's standing, were

treated with superheated formalin air, with the result that seven were cured and remained so, the longest for seven months and the shortest for three and a half months. Of the remaining seven, two were operated upon and five are still under treatment, though much improved. Four cases of acute otitis media and two cases of otitis externa were markedly benefited by the hot air applications. Three cases of acute sinusitis with evidences of pus were also greatly relieved by this method, and one case of lupus of the right ala, which had been treated for a period of six weeks by the x-rays without much improvement, was cured after eleven applications of superheated air, at a temperature of 225 degrees.

According to the author the application of this method of heated medicated air has a three-fold use:

1. It stimulates suppuration and helps to throw off pathological processes, thereby producing a healthy surface of healing. It produces epidermization more rapidly.
2. The cavity is dried and produces a poor culture nidus for bacterial development.
3. The formalin in this gaseous state is forced into all crevices and exerts its germicidal action more efficiently.

Progress in Otology in Fifty Years.—FAYETTE C. EWING (*Journal of Ophthalmology, Otology and Laryngology*, March, 1903).—In giving a resume of the progress made in otology during the past fifty years the author states that much of the vast attainment of the present day was in the possession of the otologist of fifty years ago, and that the most important discoveries made since that time consist in Meyer's discovery and elucidation of adenoids, the effect of nasal on aural parts, and the elaboration of the work of the surgeons. In the treatment of chronic suppurative conditions considerable progress has been made, but little improvement has taken place in the treatment of sclerotic conditions and diseases of the internal ear. The aurist of today appreciates better the relation of one organ to another as an etiologic factor in the production of disease, but does not know the anatomical minutia any better than the aurist of the early half of the last century. Perfection in diagnosis has been attained by the use of the tuning fork, Galton's whistle, Siegle's speculum and the otoscope. The ear has been more completely explored and the Politzer bag has aided in diagnosis and treatment.

In summing up the advances made in otology during the past fifty years the writer concludes that they almost entirely hinge upon antisepsis, pathology, bacteriology, histology, and operative technique.

On the Diseases of the Auditory Nerve Following the Abuse of Alcohol and Nicotin.—ALT (*Monatschrift fuer Ohrenheilkunde*, No. 4, 1903) states that diseases of the auditory nerve following the abuse of alcohol and tobacco are only casually mentioned in the text-books and not one case is described. He believes that these two etiologic factors in the production of diseases of the auditory nerve do not receive enough consideration. The majority of the mild cases of alcohol and nicotin-neuritis of the auditory nerve cannot be positively diagnosed, and are only diagnosed after the therapeutic effect is produced through the withdrawal of the poisons. The author believes that when there is a diminution in the hearing and nothing abnormal can be detected with the otoscope and tuning forks, the question of the patient's habits regarding the use of alcohol should be carefully gone into.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Angioid Streaks of the Retina.—W. T. LISTER (*Ophthalmic Review*, June, 1903).—In the condition known as *Angioid streaks of the retina*, the streaks, which lie external to the retinal vessels, appear as colored, irregular branching lines. "The disease is binocular and vision varies considerably in different cases."

Ophthalmoscopically, the streaks radiate from a band surrounding the disk. They are sharply defined, often branch and anastomose, and do not correspond in their course to the ramifications of the retinal or choroidal vessels. Their color varies from red to brown or even grey. They are sometimes accompanied by whitish "border-bands." Retinal hemorrhages may or may not be present.

The pathology is still unsettled. According to one view, the streaks originate from retinal hemorrhages, the blood corpuscles collected into lines by the tissue currents, the pigment being hematogenous. Another hypothesis is that the streaks are due to some chronic form of retinitis. Still another is that they are congenital.

Two specimens examined by the writer seem to throw some light on the subject. The first was an eye blind as the result of irido-cyclitis and secondary glaucoma following extraction. The retina was degenerated and presented pale and pigmented streaks, which lay external to the retinal blood vessels. Corresponding to the first marked streak were granular and cellular deposits containing blood vessels. A vessel could be traced from the ciliary body to the retina. The second case was an eye staphylomatous from infancy. The retina showed pigmentation similar to that of retinitis pigmentosa, and also in *branching streaks*, one of which passed to the disc margin. Microscopically, the retina was atrophic and the retinal arteries showed calcareous degeneration. Newly formed blood vessels were situated in the external layers and corresponded in position to the pigmented streaks. Their walls were pigmented and had undergone calcareous degeneration.

Briefly, the two cases exhibited pigmented branching streaks associated with newly formed blood vessels, probably derived, in one case, from the vessels of the ciliary body, and in the other from those of the optic nerve. The writer would seem to be fairly justified in assuming that angioid streaks, although belonging to a totally different class of cases from that of the specimens, are also associated with the formation of new vessels in the retina. The chain of pathologic events would seem to be as follows: Vessels penetrate into a chronically inflamed retina (just as they make their way into exudate), become pigmented and undergo calcareous degeneration. Retinal hemorrhages come, in all likelihood, from these newly formed vessels. Cases in which vision is normal are probably due to prenatal changes prior to the flattening out of the retina, the internal layers thus escaping injury.

Primary Sarcoma of the Cornea.—SENEFE and VILLARD (*Ann. d'Oculist.*, April, 1903).—The writers, in an extensive search of the literature, have been able to find but six authentic cases—*i. e.*, confirmed by histologic examination—of primary sarcoma of the cornea. In consequence, the clinical and pathologic history of this condition is poorly known.

The patient was a male, aged sixty-five. Fifteen years prior to coming under observation a pinkish growth about the size of a millet seed appeared on the right cornea, accompanied by intense conjunctival hyperemia. Under treatment the inflammation completely subsided, and the eye remained quiet for four years.

Recurrence of inflammation and pain led to the attempted destruction of the growth by galvano-cautery. The cauterization was not only not successful, but gave a new impetus to the growth, which soon covered the pupillary space. Since then the tumor had grown slowly, but quietly.

The cornea was converted into a pink, fleshy mass of rounded, irregular contour. The bulbar conjunctiva was excessively vascular, but appeared not to be involved in the new growth. The patient complained of orbital and preorbital pain.

Microscopically the tissue was formed by a network of bundles of connective tissue fibers separated by fusiform and round cells.

Of interest was the co-existence of an epithelioma of the lower lip, which was removed by operation one year prior to the enucleation of the eye. The points emphasized by the writers are: (1) The slow evolution of the tumor. (2) The co-existence of carcinoma. (3) The danger of cauterization.

Report of Cases of Extensive Symblepharon and of Shrunken and Obliterated Cul-de-Sacs Relieved by Skin Grafting, With Description of the Operation.—H. A. WOODRUFF (*Annals of Ophthalm.*, April, 1903).—Woodruff's procedure is as follows: The lid is freed from its attachment to the globe and the cul-de-sac enlarged as much as possible. Pseudo-ptygia, if present, are dissected from the cornea, cicatricial bands are removed *in toto*. A block of sheet tin is cut and filed to fit exactly the cul-de-sac. Four holes are made in the tin, two at the outer and two at the inner angle of the plate, to correspond with the lid margin. A Thiersch graft, with raw surfaces external, is folded over the lower border of the plate, which is pushed down to the trough of the cul-de-sac and sutured to the lid margin.

The operation, while not ideal, is "the best up to date." The following advantages are claimed by the use of the plate: (1) It enables one to place the graft at once in the position wanted. (2) It holds it down in the bottom of the cul-de-sac, preventing reunion of the raw surfaces. (3) It insures accurate approximation and rest.

Three Observations of Retraction Movements of the Globe (Nystagmus Retractorius).—KOEBER (*La Clin. Ophthalm.*, May 10, 1903).—CASE 1.—Ocular trouble began with divergence of the left eye, accompanied by diminution of vision. Later vision of the right eye decreased, and diplopia appeared.

The symptom group comprised: symmetrical paresis of the upward rotators of the globe, paresis of associated lateral movements, and reflex paralysis of the pupils. On looking strongly up marked retraction movements of the globe appeared, accompanied by contraction of the orbicularis and of the nostrils.

The character of the diplopia indicated a paresis of the right superior rectus and the left superior oblique. The patient was neurasthenic, with increased tendon reflex. Lea has shown that irritation of the medulla produces retraction movements of the globe and reflex pupillary paralysis in the cat. Koeber inclines to the belief that the condition in this case is congenital, but admits the possibility of a disseminated sclerosis or a superior chronic polio-encephalitis.

CASE 2.—Ocular trouble followed an attack of influenza. On looking up both globes were retracted, the left rather more than the right, and there appeared a moderate mixed nystagmus. Downward excursion of the globe was limited, but equal; lateral movements normal, accompanied by slight nystagmus. Insufficiency of right internus and paresis of accommodation.

The trouble is ascribed to peripheral paresis of the eye muscles following influenza, the movements of retraction being due to abnormal and excessive innervation of the superior recti muscles on attempting to look up strongly.

CASE 3.—In this case a cicatricial band united the conjunctiva to an old atrophic globe in such a manner that retraction movements appeared in the stump when the patient looked down and out.

BOOK REVIEWS.

DIE SYPHILIS IN DER SCHWANGERSCHAFT. Von Dr. BERNHARD ROSINSKI, Docent der Gynaekologie in Koenigsberg. Mit 7 chromolithographischen Tafeln und 17 in den Text gedruckten Abbildungen. Verlag von Ferdinand Enke in Stuttgart. 1903. Price, \$2.50.

This monograph of 206 pages deals in a most exhaustive way with the influence of syphilis of the parents upon their offspring. The problem involved is one of extreme practical, scientific and sociologic interest, and for centuries passed has always held a rather prominent position in medical writing. The author bases his deductions upon a careful study of the literature and an extensive personal experience gained as obstetrician of one of the foremost German university clinics. He does not believe in a typical permeability of the placenta for the syphilitic virus, as assumed by some writers. He illustrates with the descriptions of cases the fact that latent syphilis of one of the parents might be transmitted to the child without the infection of the other parent. A considerable part of the volume is devoted to the diagnosis and therapy of congenital syphilis in the offspring. Three to five years after the infection are considered the shortest time for the permission of marriage, in which case, however, a course of inunctions should be administered immediately before marriage. No man who ever had a syphilitic infection can be assured of healthy offspring.

These are but a few of the author's interesting conclusions, and only cited to prove that this volume deals with the question of congenital syphilis in all its various aspects. A number of excellent pathologic-anatomic illustrations greatly enhance the value of this admirable book.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT. FESTSCHRIFT ZUM 50. STIFTUNGSFEST. Verlag von J. F. Lehmann. Muenchen. 1903. G. E. Stechert, New York, Agent.

This little book, issued as a Festschrift in commemoration of the fiftieth anniversary of the *Muenchener Medizinische Wochenschrift*, gives a brief history of the most successful medical weekly in German language. We trust that all our readers are familiar with the name of this publication. There is hardly a number of the INTERSTATE that does not bring at least one abstract of an article published in this celebrated contemporary.

UEBER DIE BERECHTIGUNG DER VERNICHTUNG DES KINDLICHEN LEBENS ZUR RETTUNG DER MUTTER. Von Dr. MED. FRITZ SIPPEL. Gekroente Preisschrift. Verlag von Franz Pietzker. Tuebingen. Price, Mks. 6. G. E. Stechert, New York.

The right of destroying the fetal life in order to save the mother is a problem that has held the attention of physicians, lawyers and moralists for many centuries. In 1899 the medical department of the University of Tuebingen offered a prize for the best essay dealing with this intricate question from an obstetrical, medico-legal and ethical point of view. The prize was awarded Dr. F. Sippel of Stuttgart, author of the volume of 223 pages now before us. It would be impossible to convey within the frame of a necessarily short review an idea of the wealth of interesting historical facts, of striking legal and especially religious discussions recorded in this book. We will at this occasion limit ourselves to the statement that this book is in our opinion a literary production of unusual importance and interest, and shall be glad at some later date to enter in further details in the editorial department of this Journal. We would heartily recommend a translation of this volume into English.